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Original Articles.

THE ANGIOTRIBE IN ABDOMINAL SURGERY.*

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In the summer of 1899, it was my privilege to see the angiotribe used by Dr. Cleveland, of New York. This demonstration and the interesting paper in which he impressed the advantages of the angiotribe, its *modus operandi,* its technique, and the very satisfactory results attending its use by himself and others, prompted me, as soon as possible, to obtain an angiotribe and to use it in selected cases.

A precaution, impressed by Dr. Cleveland, was borne out by my first experience in ordering an angiotribe. The first instrument I received was found sprung and imperfect, after having been used only once or twice. To stand the great strain upon it, fine workmanship in constructing the angiotribe is essential. We saw Dr. Cleveland break an instrument he was using, and this suggests the advisability of providing oneself with more than one angiotribe. The cost of the angiotribe—$18—is an item in the first instance, but this should not be considered, if by its use the safety of the patient is in the least conserved. Moreover, the angiotribe can probably be used indefinitely and its original cost will not exceed in the long run, the outlay for ligatures and forceps.

My experience with the angiotribe has been limited to twenty-five or thirty cases, all of which were suprapubic sections. I have in no instance used it when operating by the vaginal route. This is largely due to the fact that I have had but a limited experience in working through the vagina. The encouraging reports from so many warrant the conclusion that the angiotribe is equally serviceable as a hemostatic means in intrapelvic work per vaginam.

A majority of my cases were very simple in character, about one-half were uncomplicated hysterectomies, while the other represented a variety of ovarian cystomas, morbid conditions of the tubes, etc. In only one instance were there post-operative symptoms which suggested the occurrence of hemorrhage. This case was a large ovarian cystoma, with extensive bowel adhesions, and the trauma was considerable; the post-operative shock was quite profound and lasting. In one case there was for several days sufficient febrile reaction, etc., to make me fear sepsis. This was also a large cystoma, but was non-adherent, and nothing occurred during the operation to induce infection, unless there was some escape of the cyst contents into the peritoneal cavity. In connection with this case I may say I felt no little satisfaction in knowing that there was no intraperitoneal ligature to add to the danger. At the same time I must confess, in not a few instances, to some sense of insecurity as to the probability of hemorrhage for the first few hours after the operation. This fear of hemorrhage, however, after having used the angiotribe, is not greater than my fear of infection from the use of intraperitoneal suture or ligature. I have not used the angiotribe in many septic cases, but it is especially desirable to avoid the use of the ligature in existing or threatened septic conditions. In only one instance have I failed to secure complete hemostasis by means of the angiotribe. This occurred in resecting a section of badly-infected and thickened omentum, which had wrapped up a necrotic appendix. This experience impresses the idea that the soft omental tissue will cut through, rather than condense, under powerful pressure.

My limited experience sustains fully the advantages claimed for the angiotribe. In selected cases, I think it a perfectly safe substitute for ligatures and compression forceps. The ribbon-like line of compressed tissue left in the pelvis or abdomen looks very much better to me than the mass grasped by either forceps or ligature. By means of the angiotribe the tissues are compressed for only a few minutes; tissue necrosis is said not to occur; microscopic examinations demonstrate that the ribbon of compressed tissue is quickly revivified.

The tissues grasped by the forceps are strangulated for from twelve to twenty-four hours, while that in the loop of even the absorbable ligature is constricted for days. With the angiotribe there is no puckering and traction, as is the case not infrequently with the ligature applied en masse.

The precautions incident to the application of the angiotribe—at right angles to the blood-vessels and for three minutes—are so simple that its use would seem especially indicated by those who, from lack of experience, have not mastered the art of applying ligatures to structures in the abdomen and pelvis.

I have been duly impressed with the quite commonly observed fact that post-operative shock is markedly diminished in the cases in which the angiotribe was used, and this I think is equally true as to the intensity and duration of post-operative pain. Convalescence seems, as a further sequence, to be established at an earlier date and to progress more rapidly.

The query very naturally arises, "Is there a need for this innovation?" (If it can be said, strictly speaking, to be an innovation: for a long time instruments designed to act upon the same precept as the angiotribe have been in use, notably clamps, snares, écraseurs, etc.; Tuffier's angiotribe is merely a more perfect instrument.) With the recent evolution of the absorbable aseptic ligature in an aseptic field, have we anything more to desire? Undoubtedly, our ability to provide an absorbable aseptic ligature in a sufficiently aseptic field has immensely widened the scope of operative intervention, but unfor-

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tunately in many instances we can not secure an aseptic field, and not infrequently, in spite of our best efforts, even the absorbable ligature infects before it is absorbed. In my own experience, in more than one instance, I have been tormented beyond description by a dead silk ligature in the pelvis. One of the worst cases of wound infection I have ever met with occurred in connection with an Alexander operation in which I used Marcy's kangaroo tendon. Prior to this catastrophe, I had used this suture material in perhaps a dozen or more Alexander operations with perfectly satisfactory results.

Not long since, I lost a patient on whom I did a simple appendectomy for recurring appendicitis. Virulent peritonitis from wound infection, presumably from St. John Leven's chromicized catgut, resulted, and yet I have uniformly, prior to this sad occurrence and since, used this suture material with more confidence than any with which I am familiar. I am conscious of the fact that almost countless avenues of wound infection, other than through the ligatures and suture, present themselves during an operation; it is probably as true that accidental infection of the suture and ligature material is possible in its manufacture; and there is greater possibility of its infection in its preparation for the operator. In short, until the evolution of the aseptic ligature is further advanced there will occasionally occur, even in an aseptic field, such disasters as I have instanced; while in a septic field there can be no question as to the great advantage of not having to use even the absorbable ligature and suture.

It is interesting to consider why the ligature was abandoned, prior to its re-introduction by Ambrose Paré, about 1600. Usually Ambrose Paré is credited with having introduced the ligature, but there is abundant evidence to show that he simply re-introduced it, as a substitute for the hot iron, boiling pitch, etc. I say re-introduced, because the ligature probably simply fell into disuse during the dark period of the Middle Ages. Antillus lived in the fourth century. He is credited with the "earliest recorded treatment of aneurysm[1]. The vessel, having been exposed, was tied on each side of the aneurysm, the sac incised and its contents turned out." Observing that contused and lacerated wounds do not bleed as freely as the incised wound, especially in the pre-aseptic era, it was not surprising that the effort should be made to secure hemostasis by compression or torsion.

Torsion was quite extensively practiced in the pre-aseptic era. "In some of the London hospitals—Guy's, I think—it is used almost exclusively instead of the ligature[2]." The late Dr. Murdock, of Pittsburg, only a few years ago, urged the use of torsion in lieu of the ligature, and reported a large number of cases in which it was successfully practiced, many of them major amputations. The wound surface to which the angiotribe is applied is of the nature of a contused and lacerated wound, and Nature's method of arresting hemorrhage, i. e., by contraction, retraction, and clotting, is imitated when the angiotribe is used, and no foreign substance—neither ligature or necrotic substance—is left in the wound to act as an irritant.

1. Am. Text-book of Surgery, p. 242.
2. Cheever: Lectures on Surgery, p. 100.

A NEW periodical has appeared in Germany with the title, "*Blätter zur Bekämpfung des kurpfuscherthums*" or Campaign against Quacks. It is published every fortnight and costs four marks a year. The editors are Echtermeyer and Flatau, Alexandrinen Str. 27, Berlin, S. W.

IMPROVED TECHNIQUE IN MAJOR AND MINOR SURGERY OF THE FEMALE GENERATIVE ORGANS.*

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It may be said without fear of contradiction that we owe to anesthesia, antisepsis and hemostasis not only the immense advance in modern surgery and its still greater possibilities, but a tendency to loose methods and careless work. This follows so naturally the comparative immunity from danger which surgical patients now enjoy that we need to be constantly on guard against it. With the patient before one on the operating-table, anesthetized, insensate as the raw material under the hand of the artisan and protected from immediate danger by the safeguards of hemostatis and antisepsis there is for some too great temptation to loiter over unessential details, to do showy work or to undertake daring experiments. Also the favorable conditions under which we may operate to-day make it easy to forget that in handling organs or tissues of the body we are dealing with living substances of different degrees of resisting power, and that the success of our maneuvers depends very largely on the amount of delicacy, dexterity and expedition that we use. The least possible violence must be done to delicate structures if we are to approach ideal results. In work within the peritoneal cavity, for instance, it is not enough to do an anatomically correct operation for the removal of this or that lesion of the viscera. Too often after such work we find women suffering as much as before operation. The scar tissue, adhesions and distortions that follow undue violence or careless work are frequently as great a bugbear to the patient as the condition for which the operation was undertaken. This is science overreaching herself, for it goes without saying that the main object of all operative work is to benefit the patient. And particularly is this true of all plastic surgery where a life-and-death emergency does not exist as an excuse for bungling work.

Take for example simple division and curettement of the non-puerperal uterus. I have seen the most rehensible work done here. Tearing, especially about the internal os, is most unfortunate in rapid divulsion, because close approximation of the torn surfaces and healing by primary union is practically impossible. The consequence is the formation of scar tissue about a circular orifice designed physiologically to soften, dilate and contract at the menstrual period. Thus a delicate and important function of the organ is irreparably impaired. Similar results follow the bungling or ill-advised use of the curette, especially within and about the internal os. Too vigorous or careless use of this instrument may result not only in perforation, but also in the most serious disturbance of the delicate function just mentioned. The resulting granulations and scar tissue, perhaps including the entire cervix, are practically beyond remedy, and not only seriously impair the cervical function, but at all times menace stricture with its pathologic sequelæ. Indeed, this entire subject of when and how to use the curette is so important and so pertinent to my subject, that I could well afford it more extended consideration, but as I wish to speak of other procedures, I will only say by way of emphasis that I would judge of a gynecologist not so much by his hysterectomies as by how he does his curettements.

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If we regard the infections and chronic inflammatory troubles following cervical lacerations in child-bed as evils to be corrected, if we recognize cervical constrictions or stenosis—the unyielding, imperfectly-formed neck with narrowed, tortuous canal—as pathology to be corrected; in short, if we remember that the cervix is the portal leading to the superimposed uterus and adnexa, often the storehouse of infectious germs and in intimate relation with the inflamed, enlarged or displaced structures above, we must change our methods of dealing with this important organ. The operation of a decade ago, still widely practiced, has failed to fulfill the predictions of its early advocates, though entitled to the respect due all conscientious pioneer work. We now know that we can not correct the accrued pathology of an old laceration of the cervix by removing a wedge-shaped mass at either angle and sewing up the wound. You may restore contour to a certain degree, but this is not all that is necessary. To cure the patient, one should aim to correct existing lesions in such a manner as to restore physiologic relations and re-establish normal function. One can not produce a proper and permanent lumen in a defective or ill-developed cervical canal by divulsion alone, except in those cases where pregnancy promptly intervenes. This, however, is a rare exception, as sterility is the rule in such cases, not only on account of the defective channel leading to the uterine cavity, but from the catarrhal endometritis caused by it. A cervical operation, to be successful, must at the same time, in inflammatory conditions, remove all adventitious tissue from the organ, and in deformities or imperfect development, remodel the cervix to as nearly normal outlines as possible, giving ample lumen to the canal and establishing proper menstrual and intermenstrual function. To accomplish these indications I began about six years ago to do some work which I presented to this Section at its Denver meeting under the name "tracheloplasty." The lapse of time has so confirmed its success that I feel justified in outlining it again.

With the patient in the lithotomy position, or in Sims', the cervix is seized and drawn down with an especially designed reversible tenaculum. The cervix is dilated and curetted. The curetting is done only when the indications for its performance exist, but these are so constant as to make it virtually the rule. I now reverse the blades of my tenaculum, directing their points laterally from within outward, thus making traction upon the inner area of the cervix, leaving the anterior and posterior wall free for making the flaps. The cervix is now transfixed by the right-angled knife which I designed for the purpose, and a clean cut made from above downward first in the posterior lip. The anterior lip is transfixed in the same way about 1 cm. or 1.5 cm. in front of the other and cut in the same way. The remaining plug of diseased tissue is now cut away by a single clip or two of the curved scissors, the tenaculum having been changed so as to seize and make traction upon the intervening plug referred to. The flaps now fall together and inward, resembling closely the normal cervix, and a simple method of suture will keep them in this relation. I have modified the manner of placing these sutures by substituting a right-angled curved needle, with handle, as here presented; otherwise the application of these sutures is described and illustrated in The Journal, xxxi, 556. I will only repeat here the advantages which I believe this operation to possess over others. These lie in the certainty and ease with which the flaps can be made with the special knife, the clean-cut surfaces without haggling of tissues, the easy approximation of flaps and prevention of hemorrhage beneath them by deep placing of sutures and compression of flaps; the accurate approximation of mucous membrane to mucous membrane, thus preventing granulating surfaces, formation of cicatrix and constriction of canal. Then we have the certainty of obtaining a permanently patulous canal, with well-formed cervix and pronounced reduction of the hyperplastic uterus. The after-treatment is admirably simple.

In general, all that has been said in regard to cervical work applies with the same force to perineal, and there are the same indications for improvement in technique. To restore contour, stability and function to the weakened pelvic floor, I recommend a method which is the Harris procedure of shortening the torn or stretched fibers of the levator ani muscle, with a slight

Fig. 1.—Showing the instrument with the original cross-bar and screw attachment in place.

modification. In all cases of tear into one or both sulci, denude the parts, as in Emmet's perineorrhaphy, namely, by catch forceps upon the crest of the rectocele and laterally along the vaginal orifice as far as we wish to restore the perineum. Put the vaginal mucous membrane on the stretch and map out with the scalpel, and then dissect out a triangular flap along each lateral sulcus. The base of each triangular denudation is toward the vaginal orifice or torn and everted perineal mucous membrane. This latter is also denuded, as in all operations on the perineum. Now dissect out the levator ani muscle at the side of the rectum, seize its anterior fibers and draw on them to see how much slack needs to be taken up in order to hold the rectum and perineal body forward under the pubis. When sufficient of this muscle is free, fold it upon itself in its longitudinal

course and stitch the redundant tissue together with interrupted or continuous catgut suture, thus drawing the rectum and perineum well up. The triangular area in each sulcus is now closed with catgut sutures, interrupted or continuous. A buried figure-of-eight—catgut—is now so placed and repeated as to draw the lateral, gaping, perineal surfaces together, and a few superficial silkworm gut sutures close the perineal wound in the median line as in the usual perineorrhaphy.

In rectal and urethral work for hemorrhoids, fistulæ, fissures and carbuncles, the best results can be obtained by clean dissecting out of these lesions and approximating mucous membrane and cut surfaces with catgut, or some less yielding suture material, if preferred. The only objection that can be raised against this procedure is, that in very vascular areas, as about the rectum, there

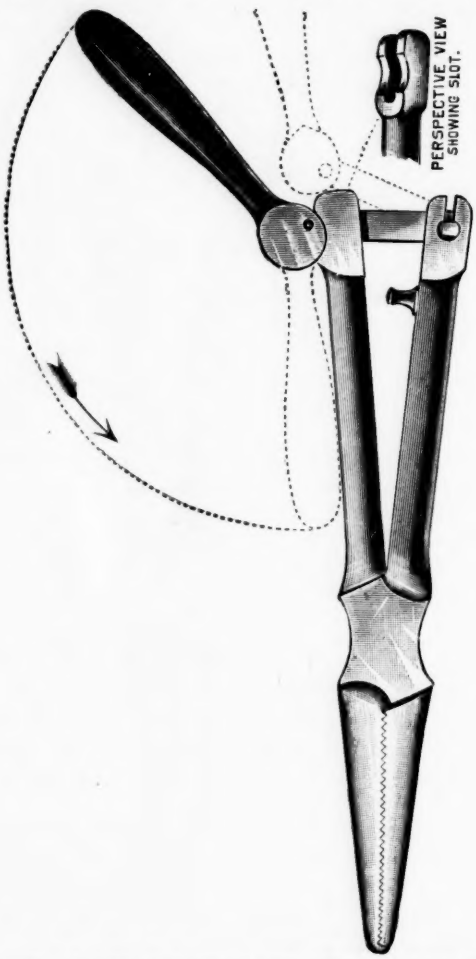

Fig. 3.—Showing the instrument with adjustable lever in place.

may be considerable bleeding. For this I have lately been using the angiotribe with good results. As vaginal section and vaginal hysterectomy became more popular the technique has been varied and elaborated, and in those familiar with its diversified and perfected execution, the ease with which the uterus can be removed by this route has led to its too frequent performance as a mutilating operation. In its execution the once popular retention clamp has given place to the ligature or some variety of angiotribe or pressure-forceps.

This instrument, wherever it has been used to any extent, has made such a favorable impression that I take some pride in the fact that I was the first to introduce it in this country. Dr. Clement Cleveland received the Tuffier instrument January 9 of last year, and performed his first operation on the same day, whereas I arrived from Berlin more than a week before with the Doyen-Thumin modification and presented it to my classes and colleagues in Chicago, which really puts the West several epochs ahead of our New York brethren.

A circumstance connected with my purchase of the model is worth recording. I was in Berlin in December, 1898, and there saw Professor Landau using the angiotribe. Doyen, who disputes honors with Tuffier, had brought it to Berlin and demonstrated it in Landau's clinic. Thumin, an assistant of Landau's, immediately set about making improvements in the mechanism, and it was in its experimental stage that I saw it. Forty-eight hours before my departure I ordered the instru-

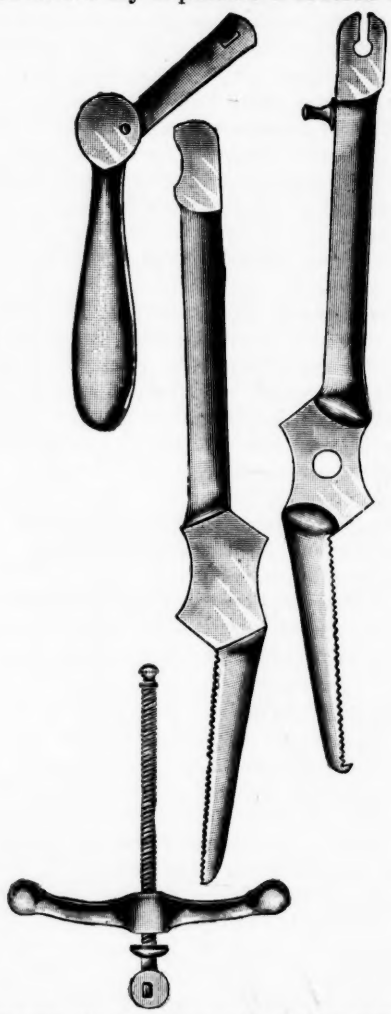

Fig. 3.—Showing the instrument with handles taken apart and its attachments separated.

ment from the maker. He had none in stock, and demanded an exorbitant price for getting out one in a hurry by special workmen. I objected to the figure, named a reasonable sum, and gave him one day to reflect. Within the specified time the instruments I had ordered, including the angiotribe, were delivered to me. I had no sooner taken ship than a message came to my address from Professor Landau asking for the return of the instrument, as he had no other, and expected to demonstrate it at a clinic the next day. From subsequent correspondence I gathered that the dealers, not to lose a sale, had given me an instrument sent in by Landau or Thumin as a model, or for alterations, and that for the moment I was on the high seas with the only angiotribe outside of France.

In studying the mechanism of the instrument, it occurred to me at once that if useful in vaginal hysterectomy, it would be of infinitely more value in abdominal section or within closed cavities. I at once set about making such modifications as I believed would fit it for both abdominal and vaginal work. The changes which I made in the instrument and its use are so fully described in the reports I have already made to the Chicago and American Gynecological societies and this Association at Columbus, that I will only add here a few recommendations which more than a year's experience justifies.

1. It is all important that the instrument itself be of faultless make, and thoroughly tested by a competent mechanic before using. Whatever model is used, the secret of success is in its strength and the accurate adjustment of its blades.

2. Do not use it upon omental or like fragile tissue.

3. Avoid handling or disturbing the attenuated stump after removing the clamp.

4. It is not necessary to cauterize the thin edges of the stump, except when there are infectious germs to be destroyed.

5. As there is no oozing from surfaces amputated in this way, no drainage is required.

6. Compression of 3000 pounds for a minute or more should be practiced in all very vascular areas.

7. In softened, edematous conditions, there is the same danger of cutting and breaking of tissue with the angiotribe as with the ordinary ligature.

8. In applying on pedicles, care should be taken to equally distribute the tissues within the bite of the forceps.

9. The use of the angiotribe requires as much skill and judgment as other and apparently more complicated surgical procedures.

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DISCUSSION ON PAPERS OF DRS. CARSTENS, TAYLOR AND NEWMAN.

[The paper of Dr. J. H. Carstens appeared in THE JOURNAL of July 21, p. 159.]

Dr. W. H. Wathen, Louisville, Ky.—I have listened with much pleasure to these interesting papers. I have realized for a long time that much of the objection to surgery of the uterus and its appendages is the result of the multiplicity of technique employed, and the number of instruments used. Very often an operator uses three or four large retractors when they are not necessary. For the last four years I have never performed an operation per vaginam, for pelvic abscesses, uterine cancer, etc., in which I have used more than one retractor. I generally use none at all. Retractors, with few exceptions, are absolutely a nuisance. I use my fingers. Operations upon the cervix, for laceration or amputation, can be done by this means in one-fourth the time required when retractors are used.

As to the angiotribe—I have not used it myself, but I have on many occasions carefully examined the instrument, and I recognize that there is a field for its use. When you make the claim, however, that there is much work that can be done per vaginam by use of the angiotribe that would otherwise have to be done by the abdominal route, I must take issue. I can not conceive of any condition where I could not accomplish as much per vaginam by the use of the clamp as by the use of the angiotribe. With extensive adhesions, the operation by the angiotribe is very much prolonged. In hysterectomy per vaginam for cancer of the uterus we should clamp and divide the broad ligaments outside infected tissue, and this, I have done for many years. I do not think that this could be done so easily and safely with the angiotribe. We often find that it is necessary to apply several clamps in vaginal hysterectomy. In my early surgery I used two; I did bad work. I use many now and do better work. You have to use the angiotribe not only once but possibly four or five times, and I consider that it brings about a very serious complication. In cancer of the uterus, I have always contended that there is no field for abdominal work. When Drs. Kelly and Clark published their methods of operating through the abdomen, I on every occasion denounced the method as illogical. I have no use for it. I claim now, as then, that you seldom have a clamp infection. If you remove them in from 1 to 2½ hours you have certainly committed a great sin against your patient. I believe the vaginal operation is the only rational one; if we wish to be successful let us simplify our technique. The infection first extends between the broad ligaments, later, if ever, into the pelvic or lumbar glands. If the glands are involved, the operation is always contradicted, as I have urged since the operation was first performed.

Dr. J. Riddle Goffe, New York City—I have had considerable experience with the angiotribe, and I wish to say a word for it. It has been said that it simplifies the operation. It certainly does. It is perfectly safe in my opinion. In order to test the efficiency of it I selected for hysterectomy two cases of uterine cancer in which the disease extended out into the broad ligaments. They were strictly inoperable cases, from the standpoint of cure. I used the angiotribe exclusively to control the hemorrhage, and even in cancerous tissues the instrument worked as satisfactorily as in healthy tissue. I not only use it for hysterectomy, but also in removing diseased appendages per vaginam. Quite recently I had a case of cancer of the rectum in which I resected the rectum through the vagina. I made the incision down the posterior vaginal wall, dissected the vagina from the rectum, shelled out the rectum from its bed and dragged it down. As I reached the peritoneal cavity it became necessary to constrict the mesentery, and this instrument, snipping off the mesentery as I went along, acted like a charm, and I had the blood-supply completely under control. Moreover, I pinched the rectum off with the angiotribe, thus controlling hemorrhage from the severed end of the rectum, and obtained a perfectly dry field while stitching it to the margin of the anus. I have used it in cases of hemorrhoids and always found it a perfect hemostatic, easily handled, and convenient. I have been diminishing the time for leaving it on to 1½ minutes. I use the Tuffier angiotribe. I recently reported 16 cases in which I applied it. I have since used it exclusively in all my hysterectomies. It does away entirely with the ligature.

Dr. J. Wesley Bovée, Washington—I am very glad to hear such a good report from the use of this instrument, but it seems to me to be more like a plumber's tool than a surgical instrument. Dr. Carstens says that many operations requiring abdominal section can be subjected to vaginal celiotomy by means of the angiotribe. They could also be done per vaginam without the angiotribe. Many operations could be done through the vagina that are done through the abdomen. It seems to me that, in reaching the peritoneum, the more we work over a membrane constantly exposed to infection, as the vaginal mucous membrane is, the greater is the danger of infecting the patient. We can not expect to have the vaginal mucosa as surgically clean as a towel that we boil and lay over the abdomen in laparotomy. We can not think of such a thing. I think it is wrong to remove tumors per vaginam, pulling them down through a canal which we can not possibly sterilize. Neither can we operate as easily by this route as through the abdomen.

I do not see any reason why these cases operated on with the angiotribe should have a shorter period of convalescence than those operated with the ligature. I do not see the necessity of keeping the patients in bed for such a length of time. I do not know that I have had a case of vaginal hysterectomy in the last five years that has been in bed more than a week or twelve days; I don't believe that the angiotribe could shorten that time. I remove the gauze on the second day; and at the end of five to twelve days the patient is ready to sit up. It seems to me that the angiotribe is a very clumsy instrument. If you look up the literature in the French and German journals, you will find many cases of fatal secondary hemorrhage following the use of the angiotribe. The technique may have been faulty, as many cases die from secondary

hemorrhage when the ligature is used improperly. The angiotribe, however, was gotten up as an instrument to prevent secondary hemorrhage and it is said to be safer than the ligature. I do not believe that we can remove as much of the broad ligament with the angiotribe as with scissors and ligature. In operations for cancer, the hemorrhage is best controlled by applying a provisional ligature on the internal iliac. In working up through the broad ligament, ligating first the uterine and then the ovarian artery, that can be done just as well with the ligature as with the angiotribe.

DR. WM. H. HUMISTON, Cleveland, Ohio—I believe the angiotribe is a useful and practical instrument, and will have a wide range of applicability. Any surgeon who has seen Dr. Goffe use this instrument in vaginal hysterectomy will agree with me that he is not delayed by using the angiotribe. It certainly is not a clumsy instrument in his hands. I believe that with the angiotribe vaginal hysterectomy has been so perfected that it has done away with a great many disagreeable symptoms following the use of the clamps; and avoided sloughing and the accompanying foul-smelling discharge. By using the angiotribe the vaginal incisions can be closed with sutures without danger from hemorrhage or sepsis, and the patient can arise from her bed in two weeks with safety. I predict the angiotribe will be more extensively used in the near future.

DR. W. E. ASHTON, Philadelphia, Pa.—I have listened with a great deal of pleasure to the papers read. Personally I have had practically no experience with the angiotribe, for the simple reason, not that I do not believe the instrument a good one for vaginal work, but because the majority of my operations are by the abdominal route, where I would not use the angiotribe, even if it resulted in what has been claimed for it to-day. I believe in doing my hysterectomies by the abdominal route, as we need the support of the broad ligament to support the vaginal wall. Although I have had no personal experience, I believe that in simple pelvic work, for removal of appendages, the angiotribe is a good instrument.

In reference to Dr. Newman's paper I believe that the points he calls attention to are important. Care must be exercised in curetting and also in properly selecting the operation in cases of laceration of the cervix. I have seen a great many operations of curettement done carelessly. I have done them myself. It is a simple operation, providing the proper technique is carefully observed. If not, you not only gain no result from the operation, but you endanger your patient. Therefore, more care should be exercised in these cases of curettement.

With reference to the aseptic precautions and the technique of the operation, one of the principal points is the dilatation of the uterus. The instrument we use for rapid dilatation is a powerful one and it does not take long to dilate the uterus. If this is not realized the uterus in the lower part may be lacerated and you do not get the dilatation in the upper part which you would obtain if the dilatation is slow. Dilate the uterus slowly; take ten or fifteen minutes at least to procure dilatation and you will find that the entire cervical canal is well dilated, enabling you to curette easily and safely. Unless we have a free dilatation of the cervical canal and free mobility of the instrument in the uterus, you take the mucous membrane off in patches, and in infected cases a curettement would under those conditions be absolutely useless.

With reference to the question of laceration of the cervix I believe the great mistake is often made in not performing a dilatation at the right time. In a cervix which has undergone great hypertrophy, or in which there is a diseased condition of the glands, or disease of the mucous membrane, or any multiple laceration, or a cervix in which the laceration has resulted in extensive loss of tissue, a trachelorrhaphy should not be performed, as it will leave the patient in a worse condition than before the operation. Amputation of the cervix should be done, and your patient will recover not only subjectively, but go on to child-bearing. I have seen this not only in my own work, but in that of others.

DR. G. B. MASSEY, Philadelphia, Pa.—This is my first lesson with the angiotribe, and I feel that there are many more lessons before me if the surgeons are going to indorse a plumber's kit. I rise especially to take exception to the statement made by Dr. Carstens, who tells us that a prolapse of the ovary in a young girl is absolutely incurable; and that nothing but a removal of the ovary and tubes, and I presume the uterus—although I think he did not say that—is proper. Now, if the ophthalmologist were guided by that theory, where would be the eyesight of the majority of people, as there are very few of us who do not occasionally have some eye trouble of a congestive nature, and yet the eye is not removed. A large number of cases of slightly prolapsed ovary result from chronic constipation, or from lifting a sewing machine, as an exciting cause, during the prevalence of catarrhal congestion. I will say that I have cured at least a half dozen such cases, in my clinic and in my private practice, where the ovary was prolapsed and tender, but not otherwise diseased. I think it is rare to have an ovary become prolapsed unless there is disease of the uterus and usually dysmenorrhea. With that little displacement I believe it wrong to make an opening, put in this plumber's instrument, and crush those nerves and arteries. I should like to have the Doctor say whether his cases were cured or not, and whether the pain disappeared as a result of that operation.

DR. L. S. MCMURTRY, Louisville, Ky.—The discussion has taken a very wide range, and I rise to call the attention of the section to one point only. The essayists have given indubitable testimony to the fact that the angiotribe in skilful hands is an efficient agent for controlling hemorrhage in the class of operations under consideration. The trend of the discussion is to imply that the means of controlling hemorrhage in gynecologic operations by established means, particularly the ligature, is unsatisfactory and in need of improvement. We should be careful to make a distinction between a novelty and a necessity. I trust the speakers who have so extolled the angiotribe will, when closing the discussion, give us the comparative data relating to the use of this instrument and the use of the ligature. The principle of the angiotribe is not new. Other instruments have been devised and extolled to close the vessels of the pedicle by crushing. Torsion also had its day, and was claimed to be applicable to vessels as large as the femoral. These methods are undoubtedly capable of controlling hemorrhage by rupturing the coats of the vessels and closing with clot the several vessels. But the question for consideration is: which is the best method? Is crushing by angiotripsy superior to the skilful application of the ligature? Will it avert hemorrhage as securely as the ligature and maintain that security as effectively? I know nothing in surgery more satisfactory than the skillfully selected and applied ligature as a means of hemostasis, and regard it as superior to any method of crushing that can be devised.

DR. MILES F. PORTER, Fort Wayne, Ind.—I should like to have the gentlemen who recommend the angiotribe tell us what a good angiotribe is; how many pounds of pressure ought to be applied, and how long the pressure should be continued. I applied an instrument with 1970 pounds of pressure, recommended to me by a friend of the angiotribe, and the patient died of secondary hemorrhage. I now have another angiotribe, and I will use it when occasion offers. What is a good angiotribe? I do not mean in mechanism nor in the method of designing its jaws; but how many pounds of pressure should be used and how long should we keep it up? Do we require more pressure on the upper part of the broad ligament than upon the lower part?

DR. H. J. BOLDT, New York City—I think several of the gentlemen who took part in the discussion this afternoon committed an error by discussing the relative value of an instrument which they had never used. In order to discuss anything we should have some experience witht the matter under consideration. I can give my opinion of the angiotribe in a very few words. Dr. McMurtry presented the whole matter in a nutshell. I used the instrument from the time it was introduced in this country, and I have it now, although I do not use it except on rare occasions for the purpose of demonstration. Not but that it is a good instrument in appropriate cases, because it will control hemorrhage when properly applied, but I feel more secure with the ligature than with the angiotribe. The disadvantage of the instrument is, that it takes more time to operate with it than with the ligature. I believe it to be

safe enough, but do not consider that it is in any way superior to the ligature.

Dr. John C. DaCosta, Philadelphia—I do not want to say anything about the angiotribe except that I always want to see what I am doing.

In using ligatures in cancerous tissue I do not think one is doing good service when the tissue is much involved; and much less service with the angiotribe; and as the whole tissue can not be removed you would better leave the patient alone; she will get along much better with a palliative operation than with a radical one.

I feel that there are too many trachelorrhaphies done in cases where amputation ought to be done. When the cervix is very much involved we ought to amputate; get good sound tissue and draw the mucous membrane over it, stitching it to the uterine canal. Dr. Newman spoke of the danger of tearing the fibrous tissue of the uterus at the internal os. In cases of anteflexion that is just what you want to do. Take, for example, a curved piece of timber and when you straighten that timber out, the inner fibers are put in a state of tension, and the outer in a state of compression. When you bend an anteflexed uterus back you first stretch and then tear the fibers at the internal os, and you must do it if you want to straighten the uterus. You tear them; a blood-clot is formed which becomes organized, and when the patient leaves her bed she has a straight uterus. When you speak of a uterus with an acquired anteflexion after labor, and a torn cervix, that is the case where a trachelorrhaphy ought to be done, and after you have done it the uterus will have a normal curve. I have demonstrated again and again in cases of anteflexed uteri with bilateral tear of the cervix that one need not regard the anteflexion. Dissect the cicatricial tissue away properly, then unite the torn lips, and the uterus will be in a good position.

Regarding curetting, I do not believe that there is a safer or, improperly done, a more dangerous operation. Curettement is easy and safe when properly done, but it depends entirely upon the man who does it. A beginner who uses a sharp curette may drive a hole through the uterus; a trained man will not. I impress on the student the importance of having an eye in the fingers holding the curette so that he can see what he is doing just as the blind man does. You must have trained fingers to work properly.

Vaginal hysterectomy is a good thing—if you want to do an operation for vaginal hernia afterward. If you do not, open the abdomen, do an abdominal hysterectomy, and fasten the stump of the broad ligament down; attach it to the mucous membrane.

Dr. J. Henry Carstens, Detroit, Mich., closing the discussion—The gentleman from Louisville was discussing cancer of the uterus, about which I said nothing; I do not need to answer him. My friend from Washington, who has never used the angiotribe, is certainly not in a position to discuss its use. My friend from Philadelphia spoke about plumber's tools; I do not care whether it is a plumber's tool, or a sewer-digger's tool, or some horse doctor's; it is a good deal better than anything I have. If I want to do my patient good I use it, no matter how big it is.

I do not take out any healthy ovaries; I do not take out an ovary because it is a little dislocated, but the gentleman who compared it with the eye—well, if he gets any patient who has an eye dislocated about three inches from where it should be, I should like to see what the doctor would do if he got a sympathetic ophthalmia. Nobody takes out an ovary simply because it is in the cul-de-sac. You try all kinds of things; but if the woman suffers, the ovary undergoes all kinds of changes and becomes adherent, causing pain and trouble, that ovary must come out or you are not doing justice to the patient.

As for putting in gauze, sometimes I do and sometimes I don't. Sometimes I take it out after two days, and sometimes after five days; I try to adapt myself to conditions. I do not remove every uterus or ovary, nor do I use the angiotribe all the time. I said the angiotribe was good for certain cases of vaginal hysterectomy. I do not think it is good for cancer of the uterus, because the tissue you compress with the angiotribe is supposed to become organized again. When you have a cancerous uterus you want to take away every bit of tissue you can, and I use the clamps, removing as much of the broad ligament on both sides as I can. I can get more tissue away with the clamps than with the ligature, and that is why I use the clamp and not the ligature in cancers. I use the angiotribe in selected cases where you formerly used the abdominal route, in cases where the vagina is small and the ovary away down in the posterior cul-de-sac, and where the abdominal section is difficult.

Dr. H. P. Newman, Chicago, closing the discussion—I think Dr. Carstens has covered the ground very well. In reference to the operation on the cervix, it is not the Emmett trachelorrhaphy that I do, but tracheloplasty. I think the distinction is worthy of some notice. Tracheloplasty means a plastic operation on the cervix, the removal of adventitious tissue, followed by surgical reconstruction of the organ. Remove as much inflamed, indurated, or scar tissue as the case necessitates, leaving enough of the outer cervical mucous membrane, for flaps to use in restoring, as nearly as possible, the normal contour of the cervix, with its canal intact. Do not confine yourself to any classical operation, but conform your procedure to the needs of the individual case.

Dr. Wathen thinks that the use of the angiotribe consumes more time than former methods. I have found the opposite to be the case. It saves time, and I would reply to Dr. McMurtry, who wants to know what are the advantages in the use of the angiotribe, that among them are expedition, complete hemostasis, and the doing away with sutures, and the damage of leaving foreign bodies in the wound or cavity.

The angiotribe does away with that massing of tissue in the broad ligament stump, which too often allows the imperfectly constricted blood-vessels to retract from the grasp of the ligature and bleed into the connective tissue, forming a hematoma. Some eighty odd cases of this accident, following amputation of the ovaries and tubes, have been recorded by Tait alone.

In strong contrast is the linear stump after application of the angiotribe. In this narrow, ribbon-like affair, not thicker than an ordinary blotter, the blood-vessels have been so effectually secured and compressed that retraction is impossible. With the linear stump there is none of that drawing or tension on neighboring structures, giving rise frequently to displacements, disturbed function, tenderness and pain. It is also claimed that there is no sloughing of tissue as in ligation *en masse*, and consequently no granulating surfaces, adhesions, nor scar tissue.

MYOMECTOMY PER VAGINAM.*

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NEW YORK CITY.

There are probably no two subjects that so enlist the attention of gynecologists at the present time as those that are suggested in the title of my paper. The first is the value of myomectomy as contrasted with hysterectomy in the treatment of fibroid tumors of the uterus, and the second is the superiority of the vaginal method of approach over the abdominal route in the surgical treatment of pelvic disease in women. Regarding the first, there are staunch advocates of myomectomy as the operation of choice, as the dominant operation in the treatment of fibroid tumors of the uterus; and, on the other hand, there are strong advocates of the sweeping and uncompromising dictum, that in all cases of fibroid tumors of the uterus nothing short of hysterectomy should be entertained. For myself, I believe in conservatism in gynecologic surgery. If part of an ovary can be saved and menstrual function preserved to a woman throughout her natural menstrual period, save the ovarian tis-

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sue. It is my custom to leave one healthy ovary, or a part of an ovary in cases of pan-hysterectomy for fibroid tumor. If, in addition to preserving the menstrual function by retaining ovarian tissue, there is prospect of conception, gestation, and motherhood, my rule is save at least a portion of one tube and preserve for it a patulous canal.

Extending this principle to the uterus—a uterus affected with a fibroma or a number of fibromata—the following rule holds: Remove the diseased portions—as many fibroid foci as can be discovered—but save the uterus. The field for discussion here is very broad, involving the questions as to whether fibroid disease of the uterus is purely a local disease and confined to the uterus or whether, as is maintained by some, it is a general disease and invariably attended by fibroid or cystic degeneration of the ovary and Fallopian tube; whether the symptoms ascribed to this disease are caused solely by the uterine neoplasms or whether many if not most of them are due to accompanying or complicating diseases; whether all foci of the disease can be with reasonable certainty eradicated or whether some must necessarily be overlooked and so continue the symptoms, and later necessitate a second operation.

The object of my paper, however, is not to discuss this feature of the title, but, granting that myomectomy has been determined upon in any individual case, to present for your consideration the superiority of the vaginal method of approach over the abdominal route.

Two years ago, at the Denver meeting, I presented before this Section a paper advocating the treatment of retroverted uteri—with or without adhesions, and with or without complications involving diseased appendages—by shortening the round ligaments through the anterior vaginal incision. In this paper I reported 31 cases, illustrating all forms of complications in retroversion of the uterus; and had the pleasure of demonstrating to many of you the procedure itself, on a patient at the Arapahoe county hospital. Last year at the Columbus meeting I insisted upon the wide application of the vaginal method of attack to all pathologic conditions in the female pelvis, including hysterectomy for fibroid tumors. The object of my paper now is to speak specifically of its service in the operation of myomectomy. Probably this can not be done more forcibly than by presenting to you the clinical picture of a few cases:

CASE 1.—Mrs. S., aged 37, a large-framed, straight, well-built Irish woman, the wife of a policeman, presented herself with the following history: Married ten years, one miscarriage several years ago; no children; painful menstruation twice each month, lasting six or seven days; constant backache; nervous; irritable and anemic. Upon examination the uterus was found retroverted, bound down by adhesions; and in the posterior wall was a fibroid tumor the size of a hen's egg. The vaginal operation was advised, with the understanding that the full preservation of all the organs possible should be carried out, although the patient insisted that she did not care what was done, provided it secured the restoration of her health. Operation was performed at the Polyclinic, October, 1899. After curetting the uterus and packing it with iodoform gauze, the posterior incision was made, opening into Douglas' cul-de-sac. Through this opening adhesions were carefully broken up by digital manipulation, as far as could be reached; but the tumor could not be made to present through this opening with sufficient clearness and facility of approach to justify its removal. The anterior incision was therefore made, and the bladder dissected from the uterus. The anterior vaginal wall was also split throughout its entire length by a longitudinal incision and the bladder dissected from the vagina to the extent of an inch on either side. Through this opening the balance of the adhesions were broken up, and by patient manipulation, the uterus was delivered into the vagina. With the fundus at the vulva and in full view of the class of students, the tumor was shelled out in the usual way and its bed closed by tier sutures of chromicized catgut. The round ligaments were then shortened through the same incision, according to the method described in my previous paper, the uterus restored to the pelvic cavity, the bladder adjusted to its normal position, and the longitudinal incision in the vagina closed by a running catgut suture. A strip of iodoform gauze was passed into Douglas' cul-de-sac for drainage; the vagina lightly packed with the same gauze, and a self-retaining catheter inserted. The patient has since been free from all the symptoms of which she formerly complained; is experiencing normal and regular menstruation, and considers herself in perfect health.

CASE 2.—Mrs. B., of Elmira, N. Y., presented herself at my office December 1, 1899, and gave the following history: Aged 43; married twenty years; the mother of four children, the youngest being 8 years of age. She complained of having endured wretched health since the birth of her last child, her condition growing steadily worse. She was anemic, thin, nervous, and complained of insomnia. Her menstrual flow was excessive, and she suffered from a constant backache and leucorrhea. Upon examination it was discovered that there was a greatly relaxed *introitus vaginae,* a bilateral laceration of the cervix, with diseased glands and hypertrophied tissue. The uterus was retroverted and immovable, being wedged in place by a number of fibroid developments on the posterior wall and at either side. Three days later, at my sanitarium, she submitted to operation. The uterus was curetted and packed with gauze, trachelorrhaphy was performed, the anterior lip being completely rimmed out. The T-shaped incision was then made in the vagina anterior to the cervix, the bladder stripped from the uterus, and by patient, careful and persistent manipulation, the uterus, with its fibroids, was delivered into the vagina. Two of the growths, each somewhat larger than a normal ovary, were found to be subperitoneal and partially pedunculated. These were readily pinched off and smaller neoplasms, to the number of five, making seven tumors in all, were dissected out of the uterine wall, the incisions being so made as to facilitate the shelling out of two tumors through the same incision in each of two instances. There were no adhesions in this case. The round ligaments were then shortened through the anterior incision and the operation completed as in the former case. The patient's temperature remained normal throughout her convalescence and on the nineteenth day after the operation she left the sanitarium for her home. She has continued to regain her strength and general health, has been relieved of all her symptoms, and has recently written me a cheerful letter of thanks for her restoration to health.

CASE 3.—Miss M., of Yonkers, N. Y., was seen by me in consultation May, 1900. She gave the history of having been a sufferer all her life from dysmenorrhea, backache, and uncomfortable dragging sensations in the pelvis. Examination revealed a large retroverted, ad-

herent uterus, with a small fibroid in the anterior wall just above the neck and between the uterus and bladder. Vaginal operation was advised, with the idea of removing the fibroid, freeing the uterus from its adhesions, and shortening the round ligaments to cure the retroversion. The attending surgeon, who is a surgeon of note, was desirous of doing the operation himself under my superversion. The operation was performed as described in the two previous cases, but the tumor was removed previous to delivering the fundus into the vagina, by lifting up the bladder on a strong retractor and dragging down the uterus with vulsellum forceps. The tumor was brought into full view and two smaller tumors were revealed, one at the side and the other a little higher on the anterior wall. The three neoplasms were removed in the usual way, the fundus was delivered into the vagina, and the round ligaments were shortened. The other steps in the completion of the operation were carried out as usual. There were no untoward symptoms in the patient's convalescence, and I am informed that she made a most satisfactory recovery.

It will be noticed that these cases followed the general rule that uteri presenting small fibroid tumors are usually found retroverted; there are exceptions, but I think the rule will hold. In this fact lies a suggestion bearing upon the origin of these neoplasms, viz., the interference of circulation and consequent nutrition subsequent to the displacement. The question at once arises: which is the cause and which the effect? Do the tumors produce the displacement or does the displacement afford occasion for the development of the tumors? I believe the latter is the case and that we must look to the interference in the circulation and the subsequent nutrition as the occasion for the development of these growths. Competent pathologists are of the opinion that these growths arise from a proliferation of the muscularis of the arterioles. This would indicate that their origin lies very close to interference with the circulation as a cause. The facility afforded by the vaginal method of approach for the cure of the retroversion is an additional factor in favor of it; for even if, as some claim, the presence of several small growths implies a multiplicity of foci, their development may be retarded by a restoration of normal circulation and metabolism by restoring the uterus to its normal position.

The superiority of the vaginal method over the abdominal in meeting this condition is the same as that which attaches to all vaginal work; the dangers are less, incomparably less; the convalescence is smoother and simpler, the patient being relieved of the annoyance of stitches, adhesive plaster, bandages and dressings; there is no visible scar to constantly remind her of her experiences, and above all there is no danger of hernia. The question arises: what shall be the upper limit to the size of fibroids that can be dealt with in this way? Experience and facility of operation on the part of the operator can alone determine this question, although the location of the tumor plays a large part in its solution. The traumatism, so far as the patient is concerned, is of so slight a character, that even if the effort in this direction must be abandoned and the abdominal incision made, very little detriment attaches to it, except the loss of time. After the incisions are made, opportunity is afforded to decide whether a myomectomy or a hysterectomy is indicated; if the latter, all the steps already taken are essential to the procedure and no time is lost.

During the past three months I have dealt with two private cases in this way, deciding upon vaginal hysterectomy after the tumors had been carefully located and the impracticability of myomectomy ascertained. In both these cases the tumors weighed something over two pounds, and occupied so much of the fundus that it seemed impossible to enucleate them or morcellate them without destroying the openings of the Fallopian tubes. The desirability of retaining a reconstructed uterus of that character was not apparent and a hysterectomy was done in each case.

MYOFIBROMA UTERI.*

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The greater number of solid neoplasms of the uterus are fibromyomata; tumors, consisting of fibrous connective tissue only—fibroids—or of muscle only—myoma—are comparatively rare. It is the preponderance of one or the other of these tissues in a tumor on which the consistency depends, and to some extent the rapidity or slowness of its growth.

The original seat of such neoplasms is, strictly speaking, interstitial; that is, the growth takes its starting-point in the parenchyma of the uterus, and subsequently grows in the direction of least resistance; thus subserous and submucous fibromyomata are formed. Real subserous tumors are freely movable, unless they become incarcerated in the true pelvis. They rarely cause symptoms, except when they attain a large size, or become incarcerated or twisted.

Interstitial tumors are of two varieties: 1, the greatest number are encapsulated and may, therefore, be readily enucleated, if the capsule be incised; 2, those which are diffuse—adenomyomata—and blended with the uterine wall. There are instances of interstitial fibromyomata situated in the corpus, which produce torsion at the junction of the uterine body with the cervix, and an instance has been reported in which complete separation from the cervix took place.

Under the term of submucous fibromyomata only those should be classed which have been born or extruded almost completely into the uterine cavity. Those still remaining mostly within the uterine wall should be classed as mixed tumors—a combination of submucous and interstitial situations.

The histogenesis of fibromyomata is still a disputed point. My own studies would lead me to believe, with Rösger, that they arise from the muscularis of the capillaries. This, too, would explain why in the earliest stages, we never find mixed tumors; from a histologic standpoint they are invariably pure myomata; fibrous connective tissue is absent until the tumors have assumed a greater size—for instance, a diameter of .25 cm. Yet the careful researches of Virchow and Cordes must be given due consideration. According to these observers, they are due to swelling and proliferation of the uterine muscularis.

A variety of desmoid tumor which has given rise to much controversy is that containing glandular elements—the adenomyomata. It was von Recklinghausen[1] who shed true light on the origin of the epithelial elements contained in these growths. He ascribes their origin to the endometrium, or the Wolffian body. When the epithelial bands are derived from the endometrium they resemble in construction those found in the uterine cavity, and the tumor is located centrally to the uterine wall. If the exit of the glandular formation toward the uterine

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1. Centralblatt f. Gyn., vol. xx, p. 507.

cavity becomes obliterated, cystic dilatation of the gland cavity is apt to result. From this variety of adenomyomata we can readily conceive the coexistence of carcinoma, and hence his researches are a valuable contribution to the etiology of uterine cancer. The greater number of adenomyomata, however, have their origin in the Wolffian body. The clinical peculiarity rests on their fusion with the parenchyma of the uterine wall. T. S. Cullen[2] describes three instances of these tumors, and from his examinations corroborates the conclusion of v. Recklinghausen. Ludwig Pick,[3] in a very instructive research, shows that some of the neoplasms found and considered under the head of adenomyomata have their origin from the Müllerian ducts.

If a fibromyomatous uterus is examined, we find that its endometrium usually is thickened, except in rare instances of large interstitial tumors, when the opposite condition may exist, as the result of tension or stretching of the tumor on the endometrium. This change, of course, does not take place in pedunculated subserous neoplasms. The muscular wall of the uterus undergoes hyperplastic changes, the connective tissue and muscular cells being increased as the result of an irritative process. We likewise find various pathologic changes in the tubes and ovaries of fibromyomatous uteri. In the tubes the most frequent change is an endosalpingitis, but we also frequently see interstitial salpingitis, hydrosalpinx and pyosalpinx. Fabricius[4] makes known the findings in two cases which are worthy of careful consideration. The ovaries have usually been found to be enlarged, due to an increase of the interstitial tissue, and in the size and number of the follicles. In a number of ovaries studied by the writer the vessels had undergone hyaline degeneration, and their lumina quite frequently were found to be constricted.

Various changes may take place in a fibromyoma. I recall two instances of large tumors which disappeared entirely without any treatment, before the menopause. Both women had complained of the weight caused by the size of the growths. When seen two or three years later respectively, no trace of the tumor was found upon examination. Another instance of a large tumor complicating pregnancy disappeared entirely within a year after parturition. A still more curious phenomenon was recently observed by the writer. A woman pregnant in the fourth month, who had a myofibroma which filled the true pelvis and which could not be dislodged at the time, was directed to go to term and then have extirpation performed. She had an uneventful delivery, with seemingly complete disappearance of the tumor previous to the termination of gestation.

Such atrophic changes are presumably due to changes in nutrition, inexplicable, however, in the last case cited. Calcareous degeneration, which may also be looked upon as a form of atrophy, is another favorable change which may occur. It is rare, but one instance of such complete transformation has been observed by the writer, accidentally discovered on autopsy.

Sarcomatous degeneration must be classed among the most serious changes which such neoplasms may undergo. The myofibromatous structure is transformed into sarcoma cells and then the growth is apt to progress quite rapidly. The sarcomatous change becomes diffuse by infecting the adjacent structure similarly. The malignant areas have this peculiarity, however: they frequently perish early by necrobiosis so that one is not apt to find a large uterine tumor degenerated into a single sarcomatous mass.

According to Menge, in a discussion before the Obstetrical Society of Leipzig, Feb. 18, 1895, there is much danger of the walls of the lymphatics, in lymphangiectatic myomata, undergoing sarcomatous changes, and such tumors readily become myosarcomata. He presented two specimens to substantiate his belief. In the continued discussion, M. Sänger expresses the belief that seeming fibromyomata which take on a rapid growth after the climacterium are probably all sarcomata. The presence in them of giant cells and myoblasts is positive proof of this. The long retention of the spindle shape of the cells in such changed tumors goes to show their origin from the former benign cell.

The change into carcinoma has been alluded to, and in some cases is based upon the proof adduced by v. Recklinghausen, which has previously been considered. In another way, carcinomatous changes in a myofibroma may take place from polypi, the mucosa of which has become carcinomatous, the malignant changes then invading the deeper structures of the myofibroma.

It would be of great value were it possible to diagnose the beginning of sarcomatous degeneration in a fibromyomatous tumor; unfortunately this can not be done; it may, however, be suspected, if a tumor which has been stationary for a long period without causing decided inconvenience to a patient suddenly begins to give rise to complex symptoms which can not be explained from the size or situation of the tumor. When such growth, therefore, begins to cause pains, a feeling of malaise, etc., associated, perhaps, with an increase in size, we should consider it a practical hint and strongly advise its removal, because of the probability that degenerative changes of a malignant character are in progress. A change in the symptomatic condition of such a patient should always be noted with suspicion, not only on account of possible degenerative changes, but also on account of other serious changes which may take place in the neoplasm, such as inflammation, gangrene and suppuration, myxomatous and cystic degeneration, in any of which conditions, delay in operation is serious. There is, however, a physiologic condition, in which the sudden appearance of such symptoms as have been alluded to are apt to take place; I refer to pregnancy. The physician must be on the alert for such complications and endeavor not to commit an error in the diagnosis.

Taking for granted that the diagnosis of a fibromyomatous tumor of the uterus has been made, the question of treatment naturally arises. One must come to the conclusion, if a close observer, that the pendulum has made a swing toward quick and radical treatment. In fact, this tendency has gone even further with many, during the past few years, than the prognosis of the condition warrants. It is true that fibromyomata are not so benign as they were once thought to be, but it is also true that they are not as dangerous as some would have us believe in their writings and discussions. Many such tumors have been observed by the writer, for a goodly number of years, without a justifiable indication for operation, having in his opinion, become manifest. Others again were observed, in which an indication was considered present—mainly severe menorrhagia and metrorrhagia, yet the patients declined operation, and they seemingly got along fairly well on palliative treatment; in fact, with but few exceptions, the symptoms decidedly improved, and in some the size of the tumors diminished.

The reason for such radical change in treatment may

2. Johns Hopkins Hospital Reports, 1896.

3. Archiv f. Gynæk. vol. lx, p. 176, etc., ueber die epithel. Keime der Adenomyome.

4. Ueber Cysten und der Tube, am Uterus und dessen Umgebung. Archiv f. Gyn. vol. l, p. 383-402.

be found in the greatly improved prognosis which operation gives. Abdominal hysterectomy, in the hands of one who is a master of the technique, should not give a greater mortality than simple ovariotomy. At least, such has been my experience during the past few years, with by no means a moderate number, and these not all simple cases. Yet the unexpected sometimes happens, and, therefore, we should not indiscriminately advise radical operation for fibromyomata, not only for fear of the mortality—this being a minor consideration in view of the direct results obtained by an accomplished operator—but on account of the subsequent changes produced in a woman deprived of her pelvic organs during the period of active physiologic activity.

If by any measure adopted, we can produce a symptomatic cure, it should be done in preference to a radical operation. It must not be forgotten, however, that there are instances, although comparatively rare, in which nothing but undelayed operation should be advised; they have been mentioned among the degenerations of serious character.

The social position which a patient occupies must be considered first and foremost. This is obvious, because a woman of the laboring class can not observe the rules which are laid down for those in better circumstances, in regard to rest, diet and hygiene. Internal medication is variable. No specific has been discovered to check the size of the growth, or diminish it; to stop profuse bleeding or the pain sometimes associated with the neoplasm.

I have watched a number of patients who were placed on thyroid extract and mammary extract, the latter so strongly recommended by Shober and Polk in this country, and by Bell in England. I have seen three instances of undoubted improvement in every respect, even a slight diminution of the tumor. All of the patients alluded to have used the remedy one year or longer, but so far as the size of the tumor is concerned, it is doubtful if any permanent diminution has taken place; we know that the tumors change in size with the menstrual period, and also that the amount of adipose tissue in the abdominal walls, during the use of these remedies, diminishes in many instances, so that the medicaments are at best rather uncertain; absolute measurements are impossible in any case.

Among remedies for local use which I consider palliative, electricity has held a prominent position. I say held, because the enthusiasm with which it was accepted has died out, and among its former strong advocates equally firm condemnation is heard. Its indiscriminate use is justly condemned. When first introduced according to the technique devised and advised by Apostoli, nearly every woman who had a fibromyoma, or was thought to have one, was subjected to a course of galvanism, and hence the remedy, which was intended to be of benefit, did more harm than good. The matter stands thus, in my opinion: There is a limited field for its use, but only for palliative treatment. Not a single instance of disappearance of the growth has been observed, but some tumors have seemingly diminished in size. This treatment is indicated only in interstitial growths of moderate size, up to or below the umbilicus, when there is no other serious lesion in the pelvis—as pyosalpinx, for instance—and when the patient can bear it without causing subsequent distress, such as increased pelvic pain or neurasthenia.

From this it is apparent how exceedingly small the field is when the use of electricity may be expected to prove beneficial to the patient. In the class of cases just mentioned as suited for electrical treatment, the bleeding, though previously profuse, becomes lessened and the pain associated therewith diminished greatly; in some instances it entirely disappears, so that in this class, but only in such cases, symptomatic cure can frequently be established. Treatment should not be continued if evidence of pelvic inflammation follows its use, or if subsequent to or during the treatment much pain is experienced in application of a moderately strong current—50 to 100 milliamperes.

The use of the curette has been abandoned almost entirely by the writer for the purpose of stopping the bleeding due to the accompanying hyperplasia of the endometrium. Two instances of tumors causing profuse menorrhagia and metrorrhagia in women, aged 42 and 45 years respectively, who declined long treatment as well as a radical operation, were cured of their bleeding by the use of the galvanocautery. The cervix was thoroughly dilated, and the dome-shaped electrode of Byrne was rapidly carried through the canal. The interior was thoroughly charred, as in malignant disease, but the process was not carried to such depth. It is now six and eight months, respectively, since this was done, and both patients report themselves cured.

Various other forms of local treatment to stop the bleeding have been used with variable success; as local applications of ferripyrine; liq. ferri sesquichlorati; zinc chlorid and iodin.

Some years ago, I was, with others, favorably impressed with an operative palliative treatment, consisting in ligation of the uterine arteries. Unfortunately, the continued observation of the patients thus treated showed that the method did not bear the test of time; it has, therefore, been abandoned.

ARRHYTHMIA CORDIS COMPLICATING FIBROMATA UTERI.*

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The study of the life history of uterine fibromata, with their multiplicity of combinations, has been patient, persevering and full of vexations. At first, considered perfectly benign, we have come to recognize the probability of their producing great harm and even of taking on malignant degeneration.

Their complications are becoming constantly more numerous. Sorel[1] has found they have a close relation to glycosuria. He demonstrated this relation in some marked cases of glycosuria, extending over a period of years, complicated by uterine fibroids, and in which a quick and decisive cure of the pathologic discharge of sugar followed hysterectomy.

What etiological relation, if any, exists between arteriosclerosis and uterine fibroids is still a matter of conjecture. La Force[2] considers it a potent cause of fibroids of this organ, and many believe a condition of arteriosclerosis is usually present in most cases of these growths. It would seem but rational to find such condition present, but thus far I am not aware of its positive demonstration in any instance, except in advanced life. Certain conditions of the nervous system in the formative stage of fibroids have been noticed. Insomnia, headache and hyperesthesia of the sensory organs are present in a marked degree, according to Grace P. Mur-

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ray.[3] Many nervous symptoms during the presence of these fibroids have been observed. One striking case was that of loss of vision, which returned immediately after hysterectomy. As the female generative organs are very closely allied with the nervous system, troublesome and, perhaps, grave nervous symptoms may be expected in cases of uterine fibroids. Although organic cardiac disease is often associated with these tumors, cardiac symptoms in the absence of any lesion of that organ very rarely exist in such cases. In an experience with fully one thousand fibroids of the uterus I have seen but one such case. In a careful search of the literature in the library of the Surgeon-General's office, in my city, I fail to find any case reported, or any reference to the subject. It is this great rarity that has emboldened me to report my own observation of the condition, hoping to interest the profession in further study of this complication of fibroids of the uterus. The history of the case is as follows:

Kate R., 26 years of age, colored, was admitted to Columbia Hospital for Women, Oct. 23, 1896, complaining of "a pain in the stomach" and a tumor in the abdomen, first noticed three years before. She was never married, but had had two abortions, the last of which occurred three years before as the result of a fall. Her menses began at the age of 17 years, usually lasted seven days, were regular, profuse and quite painful, and last occurred Oct. 1. Her appetite was fair and her bowels regular; she complained of unusual fatigue on ascending stairs. She was well nourished, had no glandular enlargement and no edema, but the mucous membranes had an increased brightness of color. The area of cardiac dulness was very slightly increased. No cardiac murmurs were found. There were irregular distinct pauses in the heart sounds, with corresponding radial pulse intermissions. These varied from every third to every twentieth beat, and were always synchronous. No other irregularity of the heart action was observed, and the pulse was from 62 to 74. In the abdomen and pelvis were found freely movable, multiple uterine fibroids, filling the pelvis and extending to two inches above the umbilicus. Absolutely no abnormality other than the presence of the tumors and the cardiac arrhythmia was found. She was kept in bed, fed on highly nutritious food and given strychnia in liberal doses. Frequently consultations with other members of the hospital staff were held, the verdict, always unanimous, was every time against the advisability of proceeding with the operation until her cardiac symptoms were removed. She begged to be allowed to get out of bed, but this favor was strenuously denied. December 1 she was unimproved and had no complaint but remaining in bed and waiting so long for the operation. About this time Col. W. H. Forwood, U.S.A., was visiting my wards, and I requested him to examine the patient, which he did, and expressed the opinion she would pass successfully through the operation, and further that stimulation would entirely remove the arrhythmia. Acting upon his suggestion, abdominal hysterectomy was done Dec. 17, 1896, under ether anesthesia. It was noticed her pulse immediately improved when the ether was started and improved to the third stage of anesthesia, when it was perfectly regular. During the operatin, the anesthetizer found no skipping of beats, and the pulse was 78 when she left the table. When she reached her bed he again noticed the arrhythmic action of the heart, which gradually grew more marked, and at the end of a day was practically the same as before the operation. From the time of the operation till January 27, the date of her discharge from the hospital, her pulse varied from 62 to 104, reaching the latter number but once. During this period the arrhythmia remained practically the same as it was when discovered. She had never been told she had heart trouble, nor did she suspect it. Fortunately she was not worried by the frequent examinations of heart and pulse.

Arrhythmia of the heart is defined as being a deviation of the normal rhythm of that organ; several varieties of it have been observed: 1, the true intermittent, in which the ventricular contractions are uniform in degree, but at regular or irregular intervals, a pause, covering the time of one or more contractions, occurs; 2, the false intermittent, which differs from the true variety in that the contractions at intervals are not entirely suspended, but are so feeble that no arterial pulsation is discoverable; 3, a variety, the chief symptom of which is the *pulsus bigeminus.* In this variety a full systole is followed by a short systole, then coming a short and incomplete systole, and then a long systole; 4, a variety in which a regular irregularity of the force of the systole is noted, producing an alternating weak and strong pulse, known as the *pulsus alterans;* 5, delirium cordis, in which the irregularity of systolic contraction is irregular and the pulse-rate very fast. These are the principal forms of cardiac arrhythmia, though others are observed. In some cases combinations of these varieties are noted, and at times different combinations have been noticed in the same individual. It is not necessary to mention in detail the nerve-supply of the heart, as all of you are familiar with it. Besides, after removal of the heart from the body, its rhythm has been continued for a considerable time, as noted by various observers, demonstrating its independence of the central nervous system. And yet when we study the etiology of cardiac arrhythmia, we must acknowledge the influence the central nervous system exerts over it. Wenkback, in a paper entitled "The Physiological Explanation of the Arrhythmic Action of the Heart," read before the eighteenth German Congress for Internal Medicine, says: "Modern physiology teaches the normal heart action depends on: 1, the automatic excitation of the heart-muscle; 2, the power to conduct the motor impulse from muscle-cell to muscle-cell; 3, the contractile power of the heart-muscle. An increased automatic excitation is the cause of *pulsus trigeminus intermittens* and similar pulse forms. Lessened power of transmission explains Stokes-Adams' phenomenon and some forms of bradycardia; an increased power of transmission causes delirium cordis; lessened contractile power causes *pulsus alterans.*" According to Roy and Adami[4], simple intermittency may be due to weakened auricular impulses, ventricular contraction not following regularly. Huchard[5] suggests the special susceptibility of different points in the heart-muscle, which act like the broken cell of the galvanic battery in the conduction of the impulses. B. W. Richardson[6] says, "Intermittent pulse is purely of nervous origin and is always induced—when not inherited—by shocks upon the sympathetic or vital nervous system—such as grief, fear, rage, worry, and vital exhaustion." He also says it may be coincident with heart disease. In infancy it indicates nervous derangement, while in young adults it has the same meaning and tells the story of beginning failure of power. Occurring suddenly after any great event which has told upon the mind, it may be a sign of serious import. Richardson found it the first evidence of physical derangement, in five cases of disorder of the mind in

which suicide was attempted, and believes that in advanced life and premature age it heralds nervous failure. He further says, "With this condition chronic they pass through all acute diseases less favorably, and sink more readily from surgical operations. In children it may pass away with growth and increase of strength. In adults, when estabished, it never goes away entirely though it may be absent for long periods when the health is excellent." Huchard[7] says we may physiologically recognize three classes of arrhythmia: those of nervous, mechanical and myocardial origin, while, from a pathologic standpoint there are six, as follow:

1. Nervous and cerebral. Meningitis—simple and tuberculous, apoplectic stroke; hemorrhage—cerebral or meningeal; cerebral tumors; compression of the vagus by tumors.

2. Neurotic and psychic. Hysteria, neurasthenia, epilepsy, exophthalmic goiter and emotions—paroxysmal arrhythmia.

3. Reflex. Diseases of the intestine; uterus; stomach, etc.; arrhythmia from cold.

4. Toxic. Digitalis, tea, coffee, tobacco, abuse of alcohol, etc.

5. Critical arrhythmia of acute diseases. Convalescence of typhoid fever; at the moment of defervescence of pneumonia and other acute diseases.

6. Arrhythmias of cardiopathies. *a*. Valvular. Insufficiency of the mitral valve; stenosis of the mitral valve. *b*. Myocardial. 1, acute myocarditis in typhoid, grip, variola, etc.; 2, chronic myocarditis—senile arrhythmia, degeneration and overcharge of the heart; 3, arterial cardiopathies; 4, endocarditis, pericarditis, adhesions of the pericardium; 5, insufficiency and stenosis of the aortic valves, of arterial origin; 6, sometimes angina with concomitant cardiosclerosis.

Lauder Brunton, in his article on "Intermittent Pulse[8]," mentions the case of a woman dying suddenly at 84 years of age, having had arrhythmia 67 years. Richardson describes a case in which death from senile decay occurred and in which the pulse never failed to intermit less often than once in eight beats. When she was quite insensible, the pulse, with long hesitations, came up again and was beating at the end, even when respiration had ceased. Subsequent examination showed the heart to be the healthiest of all her organs, the coronary arteries normal and the muscular structures quite free from fatty and granular degeneration. Tirard[9] found in twenty applicants for life insurance, who had this symptom, ten had heart-disease, five dyspepsia—one of these had heart disease and two malaria in addition—three albuminuria—one of whom had liver disease, one lung disease—and three had used tobacco to excess.

By considering the causes of arrhythmia we may readily understand it may be an indication of a very grave malady or of little moment. It therefore becomes necessary to endeavor to ascertain its cause, which will not always be an easy task. Under any circumstance it is a symptom that commands the boldest surgeon to pause. If no serious malady be found to account for it, surgical operations may be proceeded with, though with great care, as the condition of the heart must be considered as a handicap. In my case, I was not able to trace cause and effect, and proceeded with hysterectomy only after observing the patient two months and finding no severe pathologic condition to account for the arrhythmia. That it was not reflex from the tumor, as was for some time conjectured, is clearly proved by its resumption and continuance after hysterectomy. It disappeared only during paralysis of the voluntary muscles and unconsciousness, though present during sleep. This is evidence of its nervous origin.

In conclusion I would suggest: 1, arrhythmia cordis is not yet well understood; 2, as a complication of fibromata uteri it is exceedingly rare; 3, it has a serious import, the degree of which depends upon the condition causing it; 4, its presence as a complication of conditions requiring surgical operations necessitates a careful inquiry into its cause before the operation is performed; 5, it is a contraindication of more or less influence in all cases requiring surgical operation; 6, if not due to a severe pathologic lesion other than that for which the operation is to be performed, its presence does not necessarily prohibit operation, but lends additional jeopardy to the patient's recovery.

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DISCUSSION ON PAPERS OF DRS. GOFFE, BOLDT AND BOVÉE.

Dr. W. Evelyn Porter, New York City—The subject is one of great interest and one which I feel has not been given sufficient attention by the profession at large. The tendency in the past few years has been to do vaginal hysterectomy indiscriminately in all cases of small fibroid tumors; there have been comparatively few reports of any considerable number of cases of myomectomy. Many of the larger tumors can be easily removed by myomectomy, although the field for the operation is much more limited in this class of cases. I have personally performed the operation a number of times with extremely satisfactory results. I adhere strictly to the limit as regards the age of the patient. I believe that the operation is one which should be done with due consideration to the possibility of malignant development. In a patient beyond the age of 40, it should be limited, as there is always a possibility of the development of a malignant growth, as Dr. Boldt has told us. The technique of the operation is very simple. The location of the tumor must help to decide whether we make an anterior or posterior incision. In cases where there are adhesions in small tumors, it is very simple, but I prefer doing an Alexander's operation rather than the anterior fixation sugested by Dr. Goffe for coexisting displacement. The detail of the operation is perfectly simple, making a linear or crucial incision and enucleating the fibroid tumor. One rarely has any hemorrhage, and there are very few arguments against the operation, except the possibility of the development of a malignant growth. Where we find any difficulty in removing the growth from below, the abdominal operation is certainly advisable and to be advocated. The results have been excellent, and some of the women have been delivered of healthy children subsequent to the abdominal myomectomy for large tumors. I advocate the operation in young women.

Dr. Frederick Holme Wiggin, New York City—In support of the statement made by Dr. Goffe about making the incision along the anterior vaginal wall in many of the operations about the uterus through the vagina, I wish to say that it certainly facilitates the work in removing fibroids. There are one or two points which Dr. Goffe has not brought out. Where the tumor is larger than usual the dissection should be carried pretty far laterally, as with a small incision you have much trouble in getting down the fundus and much time is lost. I have had a number of cases of large fibroids which I have removed by myomectomy, where, if I had relied on abdominal hysterectomy, the patient would not have survived. The operation was undertaken largely because the patient was suffering so much that life was not worth living. I stated the facts of

the case and the danger to the patient and her husband, and they decided to take the risks. I opened the abdomen by means of a large incision in order to get at the tumor quickly; by making an incision through the uterine tissue there was no difficulty in shelling out the tumor. The uterus contracted very rapidly and there was very little hemorrhage, the patient making a splendid recovery. I do not think that this subject has been discussed sufficiently. I have been very much surprised at the ease with which these large tumors can be removed in this way.

DR. J. HENRY CARSTENS, Detroit, Mich.—Myomectomy is certainly excellent, and in certain selected cases, it is admirable, but there are many cases where it can not be done. One point has not been brought out, and that is that there are fibroids that are not encapsulated. Some fibroids have no beginning nor any end. They are real adenomyomas and go all through the uterine tissue; you can not shell them out; you must take out the whole uterus, but you can not tell this beforehand. The malignant changes are of importance. I make the age a rule; the older the patient the more I am inclined to do a vaginal hysterectomy, and the younger the patient the more I am inclined to do the abdominal operation and myomectomy, that is, preserve the uterus.

DR. JOSEPH PRICE, Philadelphia—Nothing could be of more vital importance than a uniform consensus of opinion. We are not talking to a class of specialists in this gathering, and for us to change our bonnets (methods) four times a year as the women do, without clearly stating our reasons is an error. We know very well that we have simple pedunculated forms of fibroids which are controlled easily by a small ligature or forceps; and if they occupy the pelvic basin in pregnant women the delivery is a perfectly safe procedure, but men who do hysterectomy will admit, after removing a good number of them, that it is always an imperfect and unsafe procedure. Dr. Goffe tells us he removed seven, but he does not know that more did not exist, as we all know that there may be many small myomas scattered throughout the uterus.

Regarding the nervous disturbances referred to by one of the authors, I scarcely believe that a woman carrying a fibroid is ever right mentally. I never operate on a woman for fibroid but what I make her and her husband and family admit that she was in better mental condition after the tumor was removed. I know that removing the uterus with a fibroid makes them much healthier physically and mentally than before the operation. As to procedure, but few at present prefer the lower route; if tumors are small and uncomplicated the operation is easy and the patients do very well, but it is not an operation they can use in every case, as the abdominal. The procedure is very much like some material. It is foolish to place in the hands of a man methods and material beyond his scope. It is wise to place in that man's hands that with which he can do good work, and which he understands.

The retrograde changes in fibroids are very common. Some of the gentlemen present recently saw me remove large tumors that were perfectly healthy, apparently, but after incising them there was cystic degeneration. They are quite common, in fact, there are degenerations in about all. In early life the mental disturbance is very marked, and if you will only do your myomectomies after the hysterectomy you will soon convince yourself that this operation can not be complete, as you leave a small colony of fibroids. We must be careful in choice of method. I did an operation a few days ago which would have been a bad one if I had performed it blindly, or by the lower route. Jacobs gives nine injuries to the bladder, ureters and bowel in a series of about 400 cases. I repeat that these methods and instruments in the hands of one like Dr. Goffe, who is dexterous and knows how to use the instruments, are perfectly safe, as he gives it a very careful study, and makes a selection of his cases. The beginner, however, ought not to have instruments of that character in his possession without first serving an apprenticeship, in which he has done the operations under the direction of a man like Dr. Goffe. Again, in alluding to improvement, he refers first to adhesions and enucleation of a large tumor. If there be a large tumor, there also is disease of the appendages. We know perfectly well that those patients may be relieved by treatment, but a man might just as well say that we are not on this pier as to say that these cases with fixed appendages and adhesions are cured. Sometimes these patients go home with the pelvic basin filled above the ileopectineal line with pus. They are not cured because they are relieved.

DR. E. G. ZINKE, Cincinnati, Ohio—I have been very much gratified with the papers and the remarks of my friend Dr. Price, especially his remarks that this operation may be done in the manner described by Dr. Goffe and men of his skill, dexterity and experience. But when a man of Goffe's ability can execute such maneuvers as he described, how much more easily could he perform the same operation, with even greater perfection and much less danger to his patient, through the abdominal wall? If he can do his work so admirably through the vagina, I am sure he will be able to do it better and quicker through the abdomen. He says in his abstract that myomectomy is preferable to hysterectomy. That is true, but only to a certain degree, even "in all cases in which it can be employed." That is well put; it makes his position defensible. I venture to say that the cases are few, and by no means as frequent as he would have us believe. How many men are there who can positively tell that there are no serious complications even in small uterine fibromata? Sometimes, aye many times, when we feel pretty certain that there are no complications existing we find conditions least of all expected. That the operation can be done I do not doubt. Is it proper to do it? That is the question! I believe I can do it myself, if I tried. But why experiment? Because this pier and the hall in which we are assembled stand safely over the water, is it well to say: Let all houses be built over the ocean? I do not believe that the method of Dr. Goffe will be practiced extensively either in this country or abroad.

I am very sorry to hear that Dr. Boldt still finds a place for electricity in the treatment of tumors of the uterus. When I was abroad nine years ago, I saw Dr. Apostoli at work in his clinics for four weeks. It was there that I came to the conclusion that he was deceiving himself and thus misleading others. Spending also a good deal of my time with Dr. Péan, I asked him one day what he thought of Apostoli's method of treating uterine tumors. He said: "Electricity is a nice thing if your patient has plenty of money and is willing to pay you for your time. But, after all, when Apostoli gets through with his cases, I get them and operate on them."

DR. W. H. WATHEN, Louisville, Ky.—I am sorry that I did not have the pleasure of hearing all of Dr. Goffe's paper, but from the discussion I have learned the various points at issue. In the first place, I think we ought to call all those tumors myomata or fibromyomata because they are in their histogenetic origin myomata. In deciding whether a tumor should or should not be operated on, or whether the abdominal or the vaginal route, or both, should be adopted, we must consider the condition that exists in each and every case, because no two cases are exactly alike. Furthermore, we must consider the ability and the expertness of the operator. There are many cases that have no capsule at all. I removed one within the last few weeks, per vaginam, nearly twice the size of a fetal head, that I could not by any means have removed per vaginam, had there been several encapsulated hard myomata. In this case you could not find where the uterine tissue ceased and where the myomatous tissue began. It is not wise to attempt to do myomectomy in many cases. If we dissect a myomatous uterus we have removed we shall always find one or many tumors that we could not have found by myomectomy. The method of operating depends on several things; but I believe that the safest way to do is to begin an operation by the method that your better judgment dictates, but be prepared at the same time to complete the operation by any other method, if conditions arise that justify it. I sometimes purposely begin an operation per vaginam and complete it from above. A few weeks ago I removed a retroperitoneal myoma of large size that I could not have removed within three times the time had I attempted it from above, but by the operation from below I separated the vagina and the bladder as high as I could in a few minutes, and clamped and cut loose about 1½ inches of the lower part of the uterus. In every operation I begin through the vagina, no matter for what condition. I always have my patient prepared for an abdom-

inal section and have the instruments that may be needed in readiness. Although I am prepared, it is unusual, however, when I begin an operation from below, that I am compelled to resort to the upper operation also. Frequently I begin the operation from below purposely with the determination to complete it from above. I believe that I can in some cases perform the operation in that way in less than one-half the time that I could from above alone. I believe Dr. Price could, in similar cases, by beginning below and completing the operation from above, operate in one-half the time that he now does by the abdominal route, and his patients would do better.

DR. CHARLES P. NOBLE, Philadelphia—I was very glad to have this brought before the Association. I think the argument is in favor of the selection of myomectomy as against hysterectomy in suitable cases, that is, young women. Concerning the choice of the method I am not of the opinion of Dr. Goffe. It seems to me that the method which he advocates is more risky and more difficult than the abdominal route. In my own hands the vaginal route has been restricted to small submucous fibroids and small fibroids low down which can be removed without specially invading the uterine cavity. To remove a large tumor from below involves extra risks of infection and more traumatism than when it is done from above. I prefer the abdominal route. This is especially true when the tumor is larger, for then it is difficult to determine whether a myomectomy through the vagina is feasible. This whole subject of abdominal versus vaginal route has been talked over so long that little need be said about it. The greater facility in reaching the field of operation, and the greater certainty of asepsis and control of hemorrhage, are the reasons I prefer the abdominal route. In clean cases, where the proper ligatures have been used, I have seen only two cases of hernia in years. As a matter of fact, we do not see fibroid tumors unless they are causing symptoms. Patients who feel well do not consult a physician; therefore, a tumor existing without symptoms is not brought to the attention of the physician, and intervention usually can not be instituted as early as is desired. In a definite percentage of these cases sarcomatous degeneration has taken place, or a necrosis, myxomatous degeneration or a carcinomatous degeneration, which cause more deaths, many more, than the operation of myomectomy or hysterectomy.

DR. G. B. MASSEY, Philadelphia.—If we are prejudiced in favor of one method of treatment our patient does not get what she pays for. We should give every case our careful, unprejudiced consideration in order to determine what method is the best to use in that particular case. I notice that professionalism in surgical opinion is very marked in these discussions, and I have also noticed an absence of it on the part of the same surgeons when the question referred to members of their own families. I was glad to notice the proper mention of electrical treatment by Dr. Boldt in his paper. Not every city in this country has been as alive to the advantages of electrotherapeutics as has New York. But Dr. Boldt does not go as far as he should. If I may paraphrase a remark made by a previous speaker; as surely as I am standing on this pier, so surely do I know of cases of fibroid tumors of large size, in fact, as large as my head that have disappeared. Now as to the so-called degeneration of fibroids into malignant growths, I think, in the light of our present knowledge, we should not call these degenerations. It is practically conceded at the present time that all cancers and sarcomas are infections, and we should therefore say infections instead of degeneration. The distinction is important, for it greatly lessens the necessary relation between the benign and malignant processes.

DR. J. RIDDLE GOFFE, New York City, closing the discussion—I do not mean to imply that my method is the only method; it is one method, and I think a superior one. The gentlemen who have discussed the paper are all right. I would do a laparotomy in case of a large fibroid extending into the abdominal cavity, and a vaginal myomectomy in a small fibroid. We must select our cases. In regard to the preference of vaginal over abdominal work I must insist upon its superiority because of the frequency and danger of ventral hernia following laparotomy. Dr. Noble flatters himself that he sees every case of abdominal hernia that occurs after his operation. I do not believe any operator sees the majority of the hernias following his laparotomies; the patient afflicted with a ventral hernia as a rule does not go back to the original operator believing it to be the operator's fault; she will go elsewhere; we see some of our hernias but not all of them, by any means.

In regard to the myomas gradually fading off into the tissues, and involving the larger portion of the uterus, that occurs occasionally and they are the cases in which hysterectomy is indicated. One point I made is important. Dr. Price criticises myomectomy as not insuring the removal of all of the tumors, and I admit that, but as I said in my paper, if you remove all that are discoverable and restore the uterus to its normal position, restoring thereby its circulation, you go as far as you can to prevent development of incipient foci. Dr. Porter spoke of my doing a vaginal fixation after myomectomy. That is not the idea. I shorten the round ligament inside of the pelvis instead of by the Alexander method.

DR. H. J. BOLDT, New York City—In regard to the definite percentage of degenerations, I would not for a moment admit it, because it is inconsistent with facts. There are cases which degenerate, but to say that there is a definite number is wrong. The experience of Dr. Price is not unusual; in operating on a case of fibroid, and on opening the tumor he found cystic degeneration.

In regard to the value of electricity, I only gave it an exceedingly limited field as a therapeutic agent, but for any one to say that it is of no service leads me to think that the observations have not been made as carefully as they might be. A certain number of cases will be symptomatically cured by electricity. It is true we need time to do it, but some patients will certainly be benefited. Dr. Goffe will pardon me if I say a few words on his paper. His words made an impression on me. In my opinion the main trouble in the cases he cited was not so much the neoplasm as the posterior adhesions, and after breaking them up the patients get along well. The greater majority of subserous tumors rarely give rise to any symptoms. The submucous tumors cause symptoms, and they can frequently be removed from below. In the great majority of instances where we have interstitial myomata the indications for the vaginal operation do not exist.

THE VALUE OF THIS SECTION'S WORK AND HOW TO ADVANCE IT.*

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I was so deeply grateful for the honor done me, when I was chosen your chairman, that I promised myself, whatever work I might undertake, it should not only meet your approbation, but also enlist your interest to that extent as to make the work yours.

The opening of the sessions with an address carries with it a certain reponsibility, for in a measure, I am but the spokesman, and my utterances are but yours. Therefore, in presenting the result of my labors, I shall briefly preface my remarks with my reasons for pursuing such a topic.

The By-Laws say that the Chairman of each section shall prepare an address on the recent advances in the branches belonging to his Section, including such suggestions in regard to improvements or methods of work as he may regard important, and present the same to the Section over which he presides on the first day of its annual session.

It will be my earnest endeavor to merit the confidence you have shown, and I hope the deliberations of our Section may be a credit to us all, and its results prove the title of this address. Not only can my work become yours, but the result of our labors can with equal justice

*Chairman's Address to the Section on Diseases of Children, at the Fifty-first Annual Meeting of the American Medical Association, held at Atlantic City, N. J., June 5–8, 1900.

be claimed as belonging to the entire medical profession.

Since pediatrics has become a recognized and distinct branch of medical science, those who have made it their life-work have left a distinct impress upon the general practice of medicine. So valuable has their work been that without these labors many modern discoveries in therapeutics would have remained unknown. And in the general advance that the year has shown the same workers have taken a most prominent part.

Of the many recent advances in medicine not one is as important to the pediatrist and the general practitioner as the clinical use of diphtheria antitoxin. It can be said that to the pediatrist belongs the honor of placing the serum where it justly belongs, and any improvement in its method of preparation, or in its use, should be investigated with more than passing interest, and the results should be known, thereby widening its field of application and increasing its life-saving power.

Diphtheria is pre-eminently a disease of childhood, the greatest frequency occurring between the ages of 2 and 10 years, and the proportionate number of cases diminishing very rapidly as the age increases. Its frequency in childhood; its constant presence in the cities of our land; the very accurate knowledge of its character in regard to its etiology, prevention and cure, which have become the common property of the layman; and above all, its being the most deadly and frequent disease that is met with by the pediatrist and the active practitioner, can be considered as prominent factors for its consideration in this address.

INVESTIGATING THE SUBJECT OF DIPHTHERIA.

Beginning my work, I found that during the year, various questions had arisen which were vital to the standing of antitoxin as a remedy in diphtheria, and to the users, if they be members of this Association or subscribers to the "Code of Ethics:" 1. The original discoverer of the antitoxin had obtained a patent for his product. 2. That at the Pharmacopeial Convention at Washington, the question of having a certain "test" embodied in the next revision of the United States Pharmacopeia had been voted down, thereby making the remedy uncertain, and instead of offering an inducement for the further improvement of its physical character, had permitted the chance of inferior products taking the same standing as the best, thereby lowering the standard of all. This question, however, is still open, hence a factor for further investigation by myself.[1]

COLLECTIVE INVESTIGATION BY OTHER SOCIETIES.

Antitoxin owes its present standing to the honest investigations of the pediatrist. Whilst many reports were received from numerous independent workers, and discussions were frequent in medical associations, no substantial results were obtained until collective investigations showed the truth or falseness of its specific value. The investigations are still too new, and their value is too well known, for me to repeat them, but they are sufficient to show me that such work was of the greatest importance, and in a measure gave me a method to further pursue my work.

OBJECT OF MY INVESTIGATION.

As there appears a certain reason that antitoxin should receive a thorough and complete investigation, and as this reason was not alone the clinical value of the remedy but also its ethical standing, I thought it proper to pursue my work in both directions, and not confine myself to the users of the serum, but to include its makers as well.

For the purpose of demonstrating the value of the remedy and to find out if it still retained the same virtues as at its beginning, early in January of this year I addressed the following communication to some 4000 teachers and leaders in medicine in this and other countries:

Dear Doctor:—Will you kindly report, at the earliest possible moment, on the experience you have had in the treatment of diphtheria, with and without diphtheria antitoxin? If you can give me the number of cases of diphtheria treated by you without antitoxin, and the number of cases treated with antitoxin, with the results, it will be of especial value.

Should you have no record of your cases, will you kindly advise what is your feeling toward the treatment of diphtheria with antitoxin?

If you have any items of particular interest in your experience in the treatment of diphtheria (with or without antitoxin), I shall consider it a personal favor if you will report to me in full.

It is my purpose to read a paper at the meeting of the American Medical Association, and I am asking the information from you since it will be of material assistance in securing data for my paper.

Have you any preference as to what make of antitoxin to employ? Very truly yours,

EDWIN ROSENTHAL.

Briefly, I wished to obtain information as to the following:

1, what is the protective or immunizing value of diphtheria antitoxin; 2, what have been the results in general (private) practice with it; 3, what influence has the antitoxin exerted on the mortality records. The unanimity of evidence obtained regarding the value of antitoxin has been most remarkable. I shall not attempt to give full data from the replies, but will briefly summarize.

VALUE OF IMMUNIZATION.

I received many reprints and direct communications upon this question alone, and the consensus of opinion can be summarized thus: Antitoxin prevents diphtheria; if given early enough and in sufficient dosage, it prevents the appearance of the disease. If the serum be given as an immunizing agent, and in doses insufficient, it will modify, that is, prevent a graver manifestation of, the malady. If immunization be practiced, and the dosage be insufficient, that is, the disease manifests itself, it permits the application of a remedial dose, thereby preventing a more serous type. The statistical evidences were both pertinent and numerous; fol. 253, New York Health Department was most characteristic.

A very practical point brought out was the dosage. This was somewhat larger than we were led to believe. Five hundred units should be the dose, except in cases that have been exposed for a number of days or where the vitality or strength is seriously impaired, and natural immunity consequently nil. In such cases, irrespective of age, from 750 to 1000 units is a more certain prophylactic.

RESULTS IN GENERAL PRACTICE.

I was deeply impressed in receiving letters from physicians who have passed through serious epidemics of diphtheria, and know from practical personal experience the changes brought about since the advent of antitoxin. I may add that some of my correspondents have given information regarding other plans of treatment with results, and that if a complete compilation

1. See letter from Parke, Davis & Co., from whose reply I obtained the knowledge.

were made, the general result would be so conspicuously in the favor of the antitoxin, that its simple repetition would suffice. My replies were of three kinds: One set I should class as consultants, teachers or writers on this subject; the second set were from active family doctors, and the third were from those connected with hospitals or other institutions in which diphtheria was treated. As the first and last class could not in truth answer the question as above, I gleaned from the mass, only those whom I deemed answered my purpose, to wit, the active practitioners, and present the result as follows:

Total number of physicians reporting.....673
Number favorable to antitoxin.....622
Number expressing no opinion..... 26
Number opposed to antitoxin..... 5

ANTITOXIN CASES.

Total number of cases of diphtheria reported.....12,375
Recoveries 11,727
Percentage of mortality, 5.23.
Number of cases reported without specifying serum..5191
Recoveries 4897
Percentage of mortality, 5.28.
Number of cases reported with serum prepared by Parke, Davis & Co. 753
Recoveries 699
Percentage of mortality, 7.15.
Number of cases reported with serum prepared by Mulford & Co..... 6325
Recoveries 6065
Percentage of mortality, 4.11.
Number of cases reported with serum prepared by Behring, Aronson, Roux, and various boards of health 106
Recoveries 96
Percentage of mortality, 9.5.

These results as just given are perhaps a repetition of what is now so universally known. This, however, teaches us that the antitoxin still retains its position, and that the results now are not different from what they were at the beginning. I might add that some of my replies were simply a sentence placed at the end of my letter of inquiry, short and to the point. An example of many is as follows: "No question for further debate; its position is settled."

THE INFLUENCE ON THE MORTALITY RECORDS.

To obtain accurate information upon this point, I called to my aid every health officer in American cities having an organized bureau of health as well as hospitals for contagious diseases and pest-houses. I also wrote to foreign countries, and to such institutions or individuals as I had learned of in my readings or otherwise. The following letter was sent to each:

Dear Doctor:—Will you kindly furnish me with the number of cases of diphtheria and the mortality of the disease from 1885 till 1899, inclusive? If you do not have the statistics for each year, kindly furnish the years for which statistics are available. Should you have no record of the cases, will you kindly advise, from your experience, what value you consider antitoxin possesses?

If you have any items of particular interest in your experience in the treatment of diphtheria (with or without antitoxin), I shall consider it a personal favor if you will report to me in full.

Have you any preference as to what form of antitoxin to employ?

My object in writing you is to secure positive and accurate information upon the treatment of diphtheria, with and without antitoxin, as it is my purpose to read a paper before the coming meeting of the American Medical Association, and your data will be of great benefit to me if you will kindly furnish it.

Very truly yours, EDWIN ROSENTHAL.

One hundred and fifty-seven cities replied. A summary reveals the following figures:

Number of cases previous to the serum period. 183,256
With a mortality of 38.4 per cent.
Number of cases since the antitoxin period... 132,548
With a mortality of 14.6 per cent.

The latter were not all treated with serum; in computing those cases treated with the serum alone the mortality was 9.8 per cent. A very characteristic reply, I append. It comes from Basel, and was sent me by Prof. E. Hagenbach-Burckhardt, and was translated by himself, and is so clear and concise that it is self-explanatory:

Year.	Without serum		With serum		Total.
	Cured.	Died.	Cured.	Died.	
1888	22	9	..	..	31
1889	20	18	..	..	38
1890	14	17	..	..	31
1891	20	11	..	..	31
1892	18	14	..	..	32
1893	20	17	..	..	37
1894	20	10	3	2	35
1895	..	2	87	17	106
1896	..	..	54	15	69
1897	..	1	48	3	52
1898	1	..	52	4	57
Total	135	99	244	41	519

Others were quite as complete, and were instructive to us, as showing how quickly such statistics could be obtained, and how the foreigners assist the authorities by keeping accurate records. France, Italy, Germany and Hungary were the most accurate, and I may especially mention the work of Egidi in Rome, Trumpp in Munich, and Bokay in Budapest as among the most prominent factors in the statistical study of diphtheria abroad. Another very pertinent and withal useful fact I obtained from my foreign correspondents and that was, that the unfavorable "serum" symptoms first noted in the use of the remedy, such as joint pains or swellings and urticarial rashes were not so frequently seen, and that latterly they were disappearing, so that an utter absence of all unfavorable manifestations of the remedy was to be expected in the future.

Of the method of using the antitoxin, the summary shows the following as the latest conclusions: When called in the early stages of the disease, and the symptoms are favorable, never administer less than 1500 units. Where, however, the "laryngeal" form threatened, it is never advisable to employ less than 2000 units. Should the type of the disease be severe, 2000 units should be the minimum commencing dose, and if of the laryngeal form, 3000 units should be the commencing dose. In every instance where favorable action does not manifest itself in 6 to 10 hours, a second injection should be made of double the number of units of the primary injection.

To what quantity can the antitoxin be used? Dr. Rosa Engelmann in her reply adds: "Would say, further, that I now use much larger initial and subsequent curative doses. I recently used 20,000 units in 7 days in one case." I was pleased to learn from this that others used large doses besides myself.

THE ETHICAL STANDING OF THE ANTITOXIN.

As the question of the antitoxin being patented by one of the originators has been the subject of journalistic discussion, much to the ethical standing of the remedy, I was prompted to investigate this point by writing to the most prominent manufacturers in this country, briefly stating my desire to have the question

of "Ethics" brought prominently before this Section, prefacing my letter by my reasons for writing, and adding that, we, who belong to the American Medical Association and subscribe to the "Code of Ethics," could not in honor use any drug that carried with it the taint of fraud. The following letter was sent to each:

Gentlemen:—In my address before the Section on Diseases of Children of the American Medical Association, I wish to place antitoxin upon the same footing as any other well-known remedy, and by this address I wish to have the indorsement of my Section, so that it should be placed in the United States Pharmacopeia.

For the purpose of showing its value from the standpoint of the physician, I have written, and have received replies from almost every well-known user of the remedy, in this and other countries. Through these I wish to show:

1. Its influence as a specific in diphtheria.
2. Its influence on the mortality records.
3. Its influence as an immunizing agent.

Now since a question has arisen regarding a "patent" and as it is essential for any one connected with the American Medical Association, or who subscribes to the "Code of Ethics," to reject any remedy whose name can be questioned, I wish to have the opinion of the manufacturers regarding the ethical standing of this drug. Will you, therefore, as a manufacturer, reply to the following questions, and in doing so, in such a manner that will be concise, and in such shape that I can append your reply to my thesis:

1. Have you any copyright, patent, or secret in the name "diphtheria antitoxin?"
2. Do you place any secret on the method of its preparation?
3. Commercially, you place it, as any well-known alkaloid —quinin or the like—the value of the remedy depending upon the reputation of the manufacturer, and sell it only through the ethical markets of the world.

I received a most satisfactory reply from each, and I can do no better than read here the replies. The first was from H. K. Mulford Company, and is as follows:

DR. EDWIN ROSENTHAL, Chairman, Etc.:

Dear Doctor:—In reply to your communication of the 22d inst. we advise that our methods for the preparation of antitoxin are, at all times, open to members of the medical profession. As a matter of fact, we cordially invite physicians and health authorities to visit our laboratories and thoroughly acquaint themselves with the methods by which diphtheria antitoxin and our various products are prepared.

We do not, nor have we ever attempted to secure a copyright, patent or trade-mark for diphtheria antitoxin; there is no secret in its method of manufacture or preparation, which is upon a higher plane even than the manufacture of chemical and pharmaceutical products, because we prove, by our standard of testing, the exact number of antitoxin units—immunizing or protective value) that each c.c. of serum contains.

Antitoxin is supplied to physicians and druggists, and we introduced the custom of protecting the product by allowing physicians and druggists to exchange for a fresh supply any lot of antitoxin not used within the time specified on each label. In addition to this we have established the system of absolute standardization of strength, giving the number of units to each c.c. of serum, as well as the aggregate number of units contained in each package.

In this connection we desire to extend to you personally, and to the members of your Section, as well as to the members of the American Medical Association, a most cordial invitation to visit our laboratories and acquaint yourselves with the methods of preparation, not only of antitoxin, but also of vaccin and our pharmaceutical products.

Your are entitled to special thanks, not only by the members of your Section and the American Medical Association, but by all physicians, for the efforts you are making to secure absolutely reliable reports concerning the value of diphtheria antitoxin and its influence upon the mortality rate.

Very truly yours, H. K. MULFORD COMPANY,
H. K. MULFORD, Vice-President.

The second letter was from the firm of Parke, Davis and Company of Detroit, and is as follows:

DR. EDWIN ROSENTHAL, Chairman, Etc.:

Dear Sir:—We have the honor to acknowledge receipt of your favor of the 22d inst., raising certain questions with regard to the ethical character of antidiphtheritic serum, and it gives us much pleasure to return an unequivocal answer to each of your inquiries.

1. We have no copyright, patent, nor secret protection in conjunction with the name "diphtheria antitoxin." From the time when we began producing and marketing the serum our product has been entitled Anti-Diphtheritic Serum. This is a scientific and descriptive appellation, strictly in harmony with the rules of rational nomenclature, and any producer of diphtheria antitoxin is free to use it.

2. We have no secrets in our methods of producing and testing antitoxin. We have repeatedly published the details of our work, and they are, moreover, open to the personal inspection of any reputable pharmacist or physician.

3. To your third question we unhesitatingly reply in the affirmative. We market our antidiphtheritic serum precisely as we exploit quinin or any other of the well-known alkaloids.

The only protection of any kind or character which we enjoy —and even this is in no sense proprietary—accrues to us from the presence of our name on the labels of the vials which emanate from our laboratory.

We sympathize warmly with your wish to have antitoxin placed upon the same footing as any other well-known remedy, and, without caring who knows it, we affirm that in our judgment the recent Pharmacopeial Convention at Washington made a mistake when it voted down the proposition to have a test for antidiphtheritic serum embodied in the next revision of the United States Pharmacopeia. We yet hope that the license and latitude accorded the revision committee of twenty-five, who are the real authors of the pharmacopeia, will prompt them to adopt and publish an official test for diphtheria antitoxin. We need hardly explain to you that such action on the part of the revision committee is of no selfish or commercial interest whatsoever to the manufacturing houses. From the sordid and commercial view-point the manufacturer of antitoxin need not care a fig whether the serum is adopted by or excluded from the Pharmacopeia. But every honorable house which aspires to be something more than a huckster of medicinal products exhibits at least some concern for the interests of medicine, science and humanity, and it is this consideration which pleads powerfully for such a test in the Pharmacopeia as shall define with precision the meaning of the word "unit," and as shall tend to shield profession and public from the disaster of an inferior or impotent serum.

Pray command us freely if we can give you any further information, and believe us, Very sincerely yours,

PARKE, DAVIS & CO.

From the latter letter you can well understand the value of the thorough safeguards that should be thrown around the remedy, and how necessary it is that its remedial character should be above reproach. Receiving this information you can well understand why I undertook the task just closed, the reasons and the results I wish for.

The history of antitoxin is inseparably connected with pediatrics. To the fearless and scientific labors of the pioneers were due the first tests undertaken, and through the collective investigations of the associations was the true position assured. Surely, it still belongs to the pediatrist to see that no injustice be done either to the drug, or its makers; and the question of its admission with all the tests necessary, to the pharmacopeias of the world should enlist the support of all.

REASONS OF THIS COLLECTIVE INVESTIGATION AND ITS OBJECT.

That there still exist physicians whose knowledge of the progress of medicine is in abeyance, and whose position in our midst is a factor of much harm, makes the

question of placing antitoxin on our list of remedies—like quinin or the various alkaloids—a very pertinent one. It is not necessary for the progressive, honest and ever-seeking doctor to be told the virtues of any new drug; for he is always on the lookout for all that aids him. But for the slow, undecided and unbelieving one, it is a very essential thing to place good remedies within his reach. The practitioner whose only progress is the United States Pharmacopeia should be assisted in his search for knowledge; and with this in view, our help can not be otherwise than in the right.

In the preparation of the scientific program, I was very much elated at the strides that pediatrics had made in the last decade. It has grown to such dimensions that it is now capable of specialization. Having this in view it has been my pleasure, with the assistance of our good and very obliging secretary, to go over the field thoroughly, and to invite, for our benefit, such pediatrists as had made certain diseases their special study. Nor did we limit ourselves to our own knowledge, but asked the assistance of those we knew, and thus completed each group by the addition of well-known authorities residing in other countries. The result of our labors we present to you in the form of our program, which we have divided into sessions, so combining the workers as to make a happy whole. To-day we have a sesion devoted to the consideration of the feeble-minded and we have specialists to address us who have devoted their lives to this work. To-morrow morning we take up the consideration of infant-feeding; in this group we have not only included the masters in the art of artificial feeding of the infant, but we shall have with us one of the foremost chemists and bacteriologists in the land, the discoverer of the poisons in the milk. In the afternoon we shall consider contagious diseases, and following out our plan of seeking the original workers in this field, we shall have Koplik—whose work in measles is so intimately connected with his name—with an original paper on rötheln; and Schamberg, with a paper on an entirely new investigation in scarlatina; whilst we have invited well-known authors for the discussion. On Thursday morning diseases of the blood and the circulation will have our attention: while in the afternoon the session will be devoted to the consideration of school children. To this session I have invited some well-known educators, as well as physicians who have devoted their time to special studies in this direction—Lautenbach on the ear, Fenton on the eye—for the discussion; while Dr. Spiegle, as physician to the Girls' Normal School in Philadelphia, will read a paper of distinctive interest to us all. Friday we have left for surgical subjects; and following closely the same general plan, our work will close with Dr. Valentine's paper on circumcision, an operation the technique of which is his own, and which is now connected with his name. Hence we may call his an original subject. With such a program as this, surely all will be satisfied, and it may be taken as a distinctive proof of progress that in this Section there is a feeling that one of our members should be appointed to deliver the yearly oration.

There is one point that is demonstrated by this program, and that is, the amount of labor and care such work entails. Even with all this work, the desired result—the universal interest and presence of all the members—may not be obtained. If the meetings be not well attended, then must we say our result is not satisfactory. For this reason, and because I have twice had the experience in getting up a program for this Section, my thoughts were again recalled to the By-laws of the Association, and the chairman's duties.

NEXT YEAR'S PROGRAM—TYPHOID FEVER.

A duty reposed in the chairman besides this address is to advise, to suggest an improvement in our method of work. I have given this my long and earnest thought, and have concluded that to keep the interest of the Section constant is to suggest such work as would become the purpose of the members, and would result in the greatest value, not only to the Section, but to the whole profession, and require the personal interest of all. Such an object as this I must confess is not new, as witness the collective investigation of other associations, but its application to our Section has never been attempted, and its trial for the new chairman and the next meeting should greatly add to the interest of a coming meeting and invite the attention of all. I would suggest that at this meeting the Fellows should adopt the investigation of a disease or its treatment, and the chairman should appoint—or it may be the pleasure of the Section so to elect—a number who shall become the committee, and who by collective means, as well as by personal investigation, shall present at the next meeting the result of a year's work. The work with which one is most familiar is the work about which he can best speak. A chairman naturally imbues such advice with a reflection of his personality. The application of remedies for an expectant or specific effect is the natural sequence of diagnostic skill. If one becomes a master in the art of diagnosis, he should equally bend his thoughts and apply his capabilities for the relief or cure of what he sees. New treatments and new remedies are always successful in the hands of one who first advised or originated. When, however, a remedy becomes universally successful its standing is assured; it ceases to be grouped amongst the expectants, and becomes a specific, and as such should receive an honorable place in our therapy. Antitoxin has passed through all the stages and now ceases to be debatable. Diphtheria has lost its terrors, and has become a preventable as well as a curable malady. As it was mainly due to the pediatrist to present such results, it is natural for the world to look upon any work thus undertaken with more than passing interest and to keep up the reputation thus gained, the work can not be otherwise than of the highest order. With the reflection of our past work let us take up our future work with the same desire, and turn our thought to another disease that, equally with diphtheria, has received the attention of the layman. I have reference to typhoid fever, a disease, the presence or absence of which from any community is a criterion of that city's culture, civilization, and I might add, its political purity. Its presence shows not only the ignorance of the powers that be, but the negligence of the responsible ones. To the sanitarian its presence causes shame, and its absence brings pride. We owe—among other blessings— to the bacteriologist the knowledge of its causative factor, and equally to him the knowledge of its prevention. As the knowledge is so universal that is is a "water-borne" disease, it should be a badge of shame for any board of health to order the rule, "Boil your drinking water." I unfortunately reside where the powers that be are callous to the cry of the people, and the slaughter of the innocents goes on. We, as a representative body, can not prevent, or even seek to do so—for, strange as it may seem, if we try to prevent or wish to alter these causal conditions, our purpose is looked upon as mercenary, and our object personal gain—we can only hope to stay

its ravages when it appears. As this disease, with such constant dangers, and beset with such numerous complications, always exists in a community, our purpose to study its treatment and to present the one that will give most promise of good will of a certainty receive universal commendation.

It appears to be a mistaken belief that typhoid fever in children is of a milder type than that in the adult, and that the prognosis is invariably better. Probably for this reason so very much has been written about the treatment as to add only to the confusion and disappointment. If we, as a body, can for our task take up the treatment that can give the best promise of success, and show the truth or falsity of each, our work will be of the greatest value. It should not be forgotten that the opportunities that many of us have are greater in proportion to what fortune has given to others, and the work that the best versed in treatment presents is quickly taken up by the less fortunate of his brothers. For this reason our work will be watched for and followed, and if of value, the commendation given us will be sufficient payment.

For the purpose of merely giving an outline of how the work should be pursued, I present my methods, in preparing the earlier part of this address. In collective investigations each one takes a part. The work belongs not alone to the one that undertakes, but to the one that assists as well.

Typhoid fever has been investigated by many associations, but in their work they have taken up the disease as a whole, and have not specialized. Naturally, the subject is so large that their influence is not so far-reaching as it would be if but a certain part were considered. Note, diphtheria, for example. The collective investigation on the subject of scurvy gave extraordinarily good results as regards infant-feeding, and cleared up the probable causative origin. As examples of this mode of preparing a program, I need but point to the last meeting of the New York State Medical Association, the sixteenth annual meeting. A whole session was devoted to the consideration of typhoid fever.

The treatment of typhoid fever in children should resolve itself into two main questions: 1. Is there any specific method of treatment? 2. Should the treatment be symptomatic only? Specific treatment is the one that will naturally give the most interest, and may be divided into: 1. The so-called antiseptic treatment; 2, the so-named abortive treatment known as *a*, the Woodbridge, *b*, the Viskolein, *c*, the serum treatment, *d*, the nuclein solution and cupric arsenite. 3. The use of the so-called antipyretics of coal-tar derivation, as antipyrin and thermol.

The symptomatic treatment can be studied by the Brand method or any of its modifications, the use of drugs, or the use of water internally, as the Vichy, bitter waters, Apollinaris waters, Apenta and the like.

The outline of a task for others to follow is very simple, but may not find favor with those who wish to pursue it, so that if such a program as this be the order of the new chairman, it should be left to him to choose the method most suitable, most convenient, and, in his opinion, concise. Furthermore, no restrictions should be placed upon the means employed; the object to be attained is sufficient. Work in this direction, especially with remedies supposed to have specific value, is always of vital interest, and always receives the attention it deserves. I ask you all to kindly read the *Pennsylvania Medical Journal* for April of this year, and note the work of Dr. J. C. Wilson, on the treatment of typhoid fever, presented before the Medical Society of the State of Pennsylvania. Such honest work as this, even if the results be negative, always receives the thanks, not only of the workers in our midst, but of all, and should spur us on to greater effort.

The chairman of the Section can allot a special session, and choose from our midst those who by training and experience are the better judges. We need not go out of our Section for this. We have Morse, Griffith, Tuley, Cotton, Wilson, Graham, Northrup, Vaughan, and so many that a repetition would be telling a list of members. From these the chairman can name a committee, if you like, to whom we all can report. They should be the ones to discuss the subject at the next meeting, and their time should be unlimited, and their report should be the report of the Section.

Work like this will hold the members together. When we adjourn we do not leave with the idea that our work is finished for the time or until we are called together again. But the work goes on and the existence of the Section continues. The interest is kept going, not being confined to the officers alone, but each member knows and feels that he is taking part. A letter of inquiry can be sent to each, with the remark that the final report should be sent in time to be collated. If by such work as this we can claim the saving of one life, then we can prove to the world the necessity for our existence, and our labors will not have been in vain.

517 Pine Street.

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FOUR CASES OF MALARIA ASSOCIATED WITH ACUTE ABDOMINAL PAIN.*

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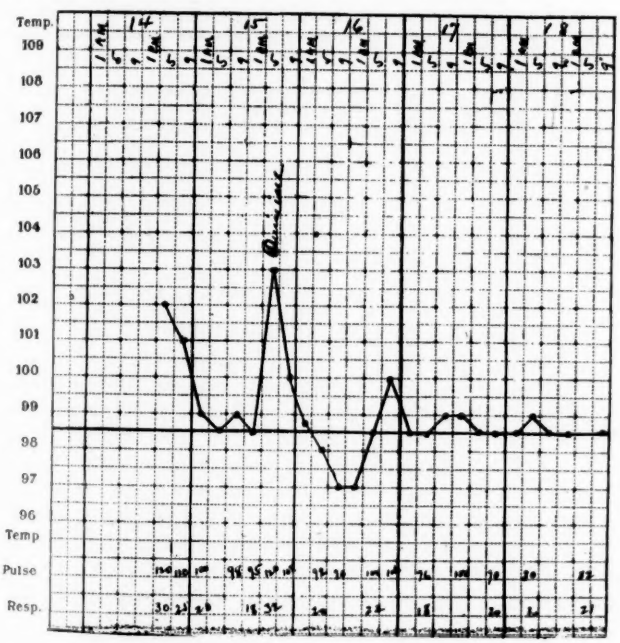
For the privilege of reporting the following cases from the wards of the Massachusetts General Hospital, I am indebted to Dr. E. S. Cutler, of the visiting staff.

Case 1.—A married woman of 25 years, living in Arlington, Mass., entered the hospital July 14, 1896. Her father died of pulmonary tuberculosis. Catamenia was always normal. She has one healthy child. Until recently her health had been excellent, with no history of malarial fever nor any of pelvic disease.

For three weeks she had not felt as well as usual, and for ten days had suffered from malaise, headache, occasional



Case 1.—Malaria, double tertian.

Blood: Hemoglobin, 70 per cent.; reds, 4,100,000; whites, 5800.

vomiting, chilly feelings and backache. During the preceding five days she had been confined to bed with daily fever. Two days before admission, upon attempting to walk, she was taken with a chill and vomiting, accompanied by severe pain in the lower abdomen. Since then all food had caused a sense of fulness and soreness in the epigastrium. On the afternoon before admission she had fever, but no distinct chill. She complained also of sleeplessness, loss of appetite and chronic constipation.

The patient was sent to the hospital for surgical interference with the diagnosis of acute salpingitis.

*Read at the Chicago Society of Internal Medicine, May 31, 1900.

The physical examination showed a body well developed and nourished, face pale, tongue moist and clean, pulse rapid and of low tension. On the upper lip were several herpes vesicles. The lungs were normal. Over the base and apex of the heart a soft systolic murmur was heard and was not transmitted to the axilla. The spleen was palpable and its area of dulness enlarged. There was no especial tenderness of the abdomen to pressure. By vaginal examination the uterus was found retroverted and on the left side there was a slight resistance and tenderness. The urine was normal and failed to give the diazo-reaction. In the evening the temperature reached 102 F., pulse 20, respiration, 30.

No actual chill occurred on the first day, but the blood drawn at the height of the fever showed a few plasmodia malariæ. The organisms were all intracellular, and contained fine pigment granules in active motion. The hemoglobin was 70 per cent., red corpuscles 4,100,000, white corpuscles 5800.

At 3 p.m. the next day she had a chill, followed by vomiting, sweating and a temperature of 103 F. During the paroxysm and for several hours afterward there was severe abdominal pain, not sharply localized. Again the plasmodia were seen in the blood and twenty grains of quinin were given in four divided doses every half hour. The fever fell and the pain gradually died away. No recurrence of headache, chill, fever, nor abdominal pain took place, and on July 29 she was discharged well.

The daily intermittent fever and the type of organism demonstrated this to be a case of double tertian malarial infection. The pain came on with vomiting during a paroxysm and persisted for several hours afterward. As to localization, the pain was referred at first to the lower abdomen, then to the epigastrium, later to the whole abdomen.

Case 2.—A widow, 31 years of age, admitted July 16, 1896. Her father and brother died of phthisis. Seven years ago while living in Hyde Park, Mass., she had malaria. For a year she had been subject to indigestion, and eight months before vomited about a teaspoonful of bright blood.

The present illness began three weeks previously with headache and frequent vomiting, which for the last ten days had been daily symptoms. For six days she had been in bed because of weakness, frontal headache, vomiting, fever and pain in the epigastrium. Four days before entrance these symptoms became more pronounced, especially the epigastric pain, which lasted all day and required morphia. That afternoon a chill came on, followed by sweating, fever and vomiting. The following day she had no chill, but the epigastric pain and headache continued. Two days previous to admission she was taken with a chill, followed by fever, sweating and abdominal pain. The next day there was no chill and no discomfort aside from the persistent pain in the upper abdomen. On the morning of the day of entrance she was delirious, had headache, vomiting and cutting pains in the epigastrium, and at 10 a.m. a chill, succeeded by fever and sweating.

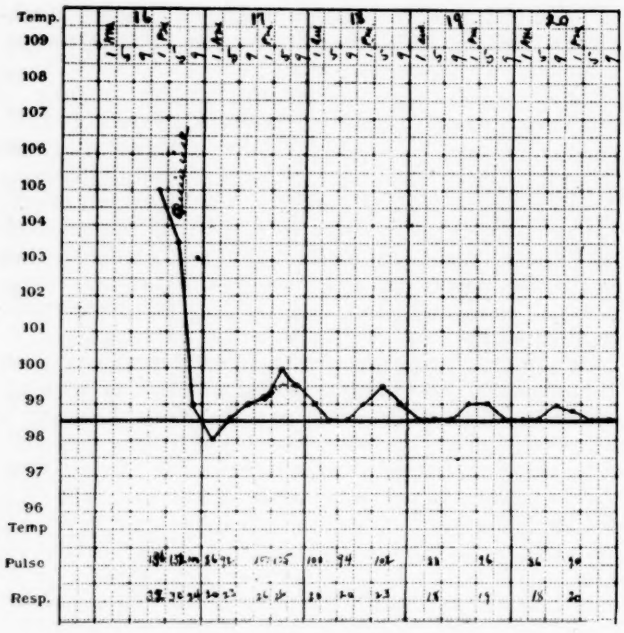
On acount of the acute abdominal symptoms she was brought to the hospital by her physician as a surgical emergency, the provisional diagnosis being either gallstone colic or gastric ulcer with perforation.

Upon examination she was found to be in good flesh, dark skinned with a yellowish tinge to the scleroties. The knees were drawn up as if from pain. Nothing abnormal was found in the heart and lungs. The edge of the spleen was felt. Over the epigastrium there was

great tenderness to pressure, which was not localized to one spot; otherwise the abdomen was negative. At 1 p.m. the temperature was 105 F., pulse 132, respiration 30.

The blood analysis gave hemoglobin 64 per cent., red corpuscles 3,900,000, and leucocytes 8900 in a cubic mm. This absence of a leucocytosis was such a strong evidence against any acute inflammatory process that a specimen of fresh blood was examined for plasmodia malariæ. A few organisms were found, but only after an hour's search in three different drops. These, however, were typical tertian forms with pigment in active motion.

At once twelve grains of quinin were given in solution, and five-grain doses repeated twice at intervals



Case 2.—Malaria, tertian.

Blood: Hemoglobin, 64 per cent.; reds, 3,900,000; whites, 8900.

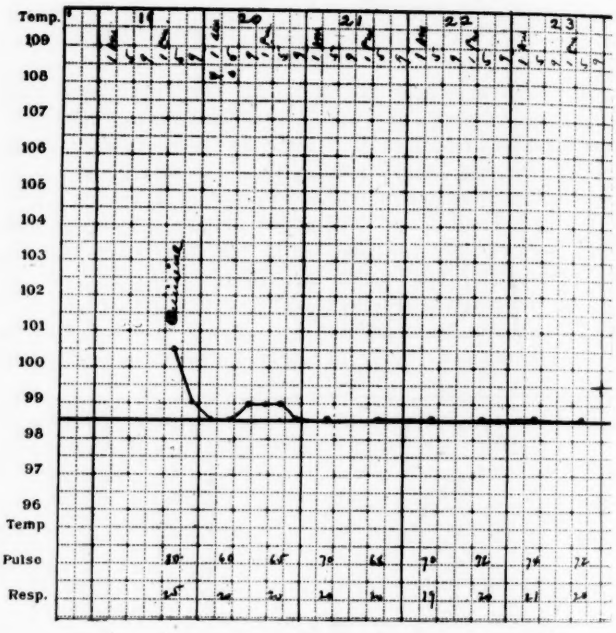
of an hour. Within two hours of the first dose she became cinchonized, and in three hours was practically free from the pain. The temperature thereafter was normal, except for a rise to 100 F. on the second day. The epigastrium remained somewhat sore and tender for several days, but no real pain returned. After nine days of treatment she was discharged in good condition, although still weak and anemic.

In this instance there is no apparent relationship between the vomiting and the pain, since the pain continued with greater severity during the intervals between vomiting attacks. It is to be noted that the seat of pain was invariably the epigastric region.

CASE 3.—This was a woman from Brighton, who was admitted July 19, 1896. Two brothers died of "quick consumption." Catamenia as a rule was normal. She had one son living and one dead. When she was last with child menstruation continued the first three months of pregnancy. Her most recent period was of three days' duration, instead of six, as was usual, and at that time several blood-clots of offensive odor were noticed.

Six years ago she was run over by a carriage and her right hip stepped on by a horse. Nearly ten weeks of treatment were necessary before she could walk about again and the right side of the pelvis has always remained a "weak spot." Since an attack of sunstroke five years ago, when unconsciousness lasted seven hours, she had been subject to frontal and occipital headache. Two years ago, after her first confinement, the uterus was prolapsed but was restored to position. From the time of her last confinement, ten months ago, she has been troubled with more or less pain in the right iliac and pelvic regions.

June 17, about one month before admission she had for the first time a chill and fever. Similar attacks came on June 18 and 20, when she began to take daily small doses of quinin. On the 22d another slight chill occurred. After an interval of twelve days, in which quinin was regularly administered in small quantities, she again had a chill with fever following it. No abdominal symptoms were present in any of these attacks. Four days previous to entrance she was compelled to go



Case 3.—Malaria, tertian.

Blood: Hemoglobin, 62 per cent.; reds, 3,610,000; whites, 5000.

to bed on acount of cramp-like pains in the lower abdomen and nausea without vomiting. There was no chill nor fever. The next day the pain was more severe, localized in the right iliac region and relieved only by morphia. Intense frontal headache was also present. Two days before entrance she was weak and exhausted from the abdominal pain and fainted away several times. In the afternoon she had a severe chill, frontal headache, vomiting and fever. The day following she was free from all symptoms, save a soreness in the right iliac region. During the day of admission she complained of frontal headache and frequent twinges of abdominal pain and toward evening became chilly and nauseated.

The physical examination showed a delicate, pale, thin woman with a sallow skin. Her expression was one of pain, but not pinched. The thoracic organs appeared normal. The area of splenic dulness was enlarged and the edge of the spleen was felt with some difficulty. The abdomen was tender and resistant over the right iliac region. Vaginal examination revealed a large lacerated cervix and a mass in the left ovarian region, not tender; also a distinct resistance in the right ovarian region with considerable tenderness. The temperature was 100.5 F., pulse 80, respiration 25.

The diagnosis had been made of extra-uterine pregnancy, and like the preceding case, she was brought to the hospital for immediate laparotomy.

That evening a small number of fully developed tertian malarial organisms were found in the blood in active motion. The count of white corpuscles was 5000, red 3,610,000, hemoglobin 62 per cent. Twenty grains of quinin were given in four doses at half-hour intervals.

After this no chill nor fever occurred, while the pain gradually diminished. A week later, however, another severe attack of pain in the abdomen came on, which was greatest in the splenic region and of less degree in the right iliac region. Chilliness accompanied the pain, but no true rigor nor fever. No leucocytosis was present and no parasites were discovered in the blood. A pelvic examination revealed nothing that explained her symptoms. Subsequently under daily treatment with iron and quinin her convalescence was rapid.

January 1, 1897, she wrote that the soreness remained in the right pelvis, but no further chills nor severe attacks of pain had taken place.

In this case there was a chronic underlying condition in the pelvis that probably caused much of the pain, but it was the supervening malarial infection that gave it such an alarming aspect. It would seem that the malarial poison converted a chronic pain and soreness into acute pain, a theory that is borne out by the subsidence of the pain under quinin. Here again the low leucocyte count was of much value in ruling out extra-uterine pregnancy or a fresh pelvic peritonitis. The pain was most intense in the right inguinal region and slight over the spleen. It was not influenced by vomiting.

Case 4.—A woman of 30 years, living in Somerville, entered the hospital August 6, 1896. Her family history was good. For several years she was troubled somewhat with dyspepsia; otherwise her health had been excellent.

Three weeks before admission she was suddenly taken with slight diarrhea and cramp-like pains in the lower abdomen, chiefly on the left side. Soon vomiting came on and continued at frequent intervals for twenty-four hours, when it gradually ceased. The bowels again became regular in a few days, but a dull aching pain persisted in the lower abdomen. On August 3 she had chill, associated with headache and vomiting. On August 5 the same symptoms recurred, but she suffered mostly from the severe abdominal pain, this time localized in the right iliac region. The pain slowly eased up after the paroxysm until another chill came on the following evening with the same acute pain.

This patient was admitted to the hospital as a case of appendicitis.

The physical examination at the time of entrance was negative, except for a moderate degree of tenderness in the lower abdomen, not especially marked over McBurney's point, and for an enlarged area of splenic dulness. The temperature was 103 F., pulse 100, respiration 30. Blood examination: hemoglobin 73 per cent., red corpuscles 3,820,000, white corpuscles 3600. The urine gave the diazo-reaction.

After the chill a few pigmented tertian forms of the plasmodium malariæ in active motion were found in the blood. With the falling temperature five grains of quinin were given and repeated three times at intervals of thirty minutes. Subsequently her temperature remained normal and every symptom disappeared completely. Neither the vomiting nor the diarrhea explains the pain, for it preceded the former and recurred when the bowels were acting normally. Localization was over the lower abdomen, particularly on the right side.

It is to be observed that in all these cases:

1. There were intermittent fever, nausea and vomiting and enlargement of the spleen.

2. There was acute abdominal pain of such intensity that exploratory laparotomy was considered by men of experience.

3. The acute pain subsided along with the fever and with the other symptoms after the administration of quinin.

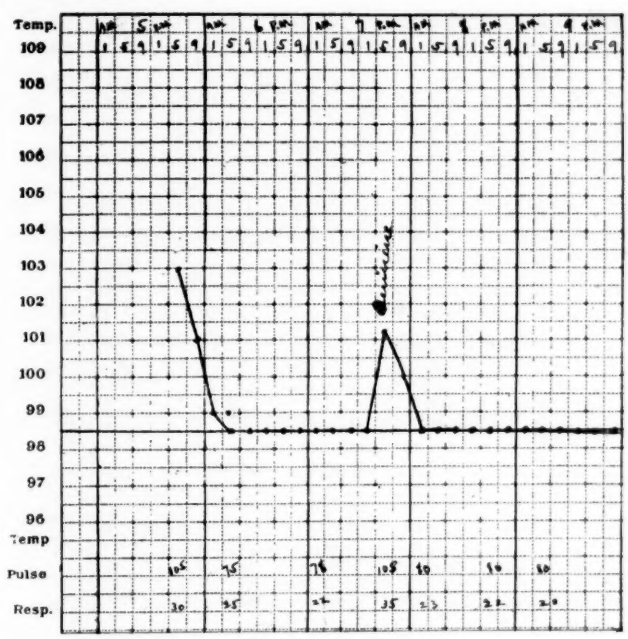
4. Typical intracellular forms of the tertian parasite of malaria with motile pigment granules were present in the peripheral blood, but were never very numerous.

5. Leucocytosis was invariably absent.

6. A considerable degree of anemia existed of the secondary type.

The cause of the abdominal pain was not at first apparent. The explanation does not lie in the vomiting and the incident straining of the abdominal muscles, for the pain often preceded and outlasted the vomiting, and was also present independently. The pain must, therefore, be attributed to: 1, some co-existing disease; 2, a neuralgia from the malarial poison, or 3, both combined.

In two cases local lesions were found that might have caused some pain, but not of such acute character. More-



Case 4.—Malaria, tertian.

Blood: Hemoglobin, 73 per cent.; reds, 3,820,000; whites, 3600.

over, a lighting up of an old pelvic cellulitis or salpingitis sufficient to cause an acute attack of pain, fever and gastro-intestinal disturbance would always produce a leucocytosis, while these cases had counts of 5800 and 5000, respectively, which are even lower than normally.

The chronic disease may be considered in the rôle of a predisposing condition, rendering the part peculiarly susceptible to the malaria poison. The most rational supposition is that the pain is a neuralgia caused by the malaria toxin in the blood.

COMPLICATIONS IN THE NERVOUS SYSTEM IN MALARIA.

Since Laveran's discovery of the specific organism, the tendency has been steadily to decrease and limit the number of complications of malaria, because many affections formerly called malarial do not afford the only final and conclusive proof of the disease, namely, the presence of the parasites in the blood. We have, however, abundant indisputable evidence that the malarial poison directly and indirectly affects the nervous system.

The brain, spinal cord, or peripheral nerves may be involved. Authentic cases of delirium, hemiparesis, monoparesis, aphasic disturbances, symptoms resembling those of multiple sclerosis and ataxia, have been reported, but our subject confines us to complications of the peripheral nerves.

Neuritis and Neuralgia.—Peripheral symptoms may be motor or sensory, the former being rare and appearing in connection with neuritis. Many cases of malarial neuritis are on record, but those in which the organism has been found in the blood are strikingly few. Among the most reliable observers is Glogner,[1] who describes six cases of multiple neuritis, four of which developed during the infection, while the parasites were present in the blood. Similar observations have been made by other authorities, notably Chiarani and Bardanelli[2] in Rome.

Gowers[3] describes multiple neuritis in malarial subjects, attacking chiefly the lower extremities, where the muscles show true degenerative paralysis.

The neuralgias are frequently met with in practice. The usual forms are supraorbital and intercostal, but they may be located in the brachial plexus, musculospiral, crural, sciatic, or sensory nerves supplying the abdominal viscera. Pain in the abdominal nerves is very unusual, but Laveran[4] first pointed out that gastralgia sometimes occurs, referable presumably to the vagus nerve.

Strümpell[5] believes that both cardialgia and enteralgia may be produced by malaria.

According to Thayer[6] very severe attacks of abdominal pain may be associated with a pernicious paroxysm. There is usually profuse vomiting, and not infrequently hematemesis; intestinal symptoms may be quite absent.

Pathology.—Most writers are agreed that neuralgia is more often a sequence of malaria than a complication of the fever. Laveran states that in his observation, the pains almost always exist previous to the chills, and that when they occur in conjunction with malaria, are a result of the associated anemia. He considers that the paralyses are carried by thromboses or emboli in the vessels, made up of plasmodia.[7] Osler finds neuralgias more often from the malarial cachexia than during the fever.[8] The neuralgia, in Gowers' opinion, is not a distinct result of the malarial poison, but due to an anemic and depressed state of the nervous system induced by malaria.

Marchiafava and Bignami question the theory that neuralgia is set up by a localization of the parasites. They assert that sufferers from malaria are apt to have in addition to the fever frequent neuralgias of the supraorbital and other branches of the trigeminal, of the sciatic, crural, intercostal and other nerves, probably as a result of intoxication.

Mannaberg[9] states that no part of the nervous system is exempt from malarial neuralgia and that the pain may be coincident with the paroxysm or follow it.

The neuralgias of malaria may be classified in two groups, the *toxic* and the *post-infective*. The toxic neuralgias come on during the febrile attack, are associated with the presence of plasmodia in the blood and are due to an intoxication with the malarial poison. The post-infective cases are not associated with fever and the presence of parasites, and are the result of anemia and cachexia.

Diagnosis.—The recognition of malarial neuralgia appearing during the febrile period, is comparatively simple. The difficulty is in identifying the post-infective cases. According to Gowers the chief feature of the malarial neuralgia is the periodicity, in intervals between attacks ranging from one to four days. Occasionally there are slight symptoms of an ague fit, a trifling hot and cold stage.[10] Leube considers the most weighty symptoms in the diagnosis are enlargement of the spleen, and chills and fever along with the neuralgia.[11] Neuralgias, whether of the head or stomach, that are quotidian or tertian and yield to quinin, Manson[12] would classify as probably malarial.

As pointed out by Marchiafava and Bignami, however, periodicity of pain and relief by quinin are not sufficient to establish the diagnosis of malaria; the organisms must be seen in the blood. Other neuralgias than malarial may be periodic and may yield to large doses of quinin.

We would lay especial stress on the importance, not only of examining a fresh drop of blood for malaria, but of counting the white corpuscles in all obscure acute abdominal diseases, for not infrequently it furnishes the clue to the diagnosis. Salpinigitis and appendicitis, when at all acute, beginning peritonitis from any cause, and rupture of an extra-uterine pregnancy are usually accompanied by a decided leucocytosis, while malaria and typhoid fever and simple neuralgic pain are characterized by a normal or subnormal number of leucocytes.

The treatment of malarial neuralgia is first the destruction of any parasites in the system by large doses of quinin. When associated with febrile paroxysms the pain usually disappears in a short time unless the fever is of the estivo-autumnal type. The post-infective neuralgias are best combated by giving in addition to quinin some preparation of arsenic or iron to correct the anemia that is nearly always present.

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SOME INCIDENTS IN THE EVOLUTION OF THE MODERN PHYSICIAN.*

WILLIAM ALFRED ELLISTON, M. D.

IPSWICH, ENGLAND.

The president commenced his address with notice of the associations of Ipswich and the deaths of Drs. Stewart and Paget, then passed to the subject of development of British medicine, which was the theme of his address. The early history of medicine in England is that of the Dark Ages; and down to the commencement of the sixteenth century, England had taken no part in the scientific advance of the century, and for almost one hundred years later no discovery of any importance was due to English research. The commencement of British medicine he dates from the return of Thomas Linacre to Oxford from the Italian universities, whence he came imbued with what was termed "new learning."

The great event in the sixteenth century, so far as medicine was concerned, was the success of Linacre in persuading the king to grant a charter to a small body of medical graduates, who were thenceforth called the Royal College of Physicians. He succeeded, it is said, principally through the great and powerful help of Cardinal Wolsey. The charter of the Royal College of Physicians was granted Sept. 23, 1518. It gave them the sole power to license to practice physic in London, or within seven miles radius, with other privileges, which were

*Abstract of Presidential Address, delivered at the Sixty-eighth Annual Meeting of the British Medical Association, held at Ipswich, August, 1900. [From advance galley-proofs kindly furnished by the Editor of the British Medical Journal.]

confirmed by a statute of Henry VIII, and extended to the whole of England. Linacre was the first president, and he held office to the end of his life.

In 1540 the barbers and surgeons were united by act of parliament. They were incorporated as the "Maisters or Governors of the Mysterie and Commonalitie of Barbers and Surgeons of London." Thomas Vicary, sergeant surgeon to Henry VIII, who had been previously master of the Barbers' Company, was the first master of the combined companies. In 1543 the irregular practitioners of London were protected by act, and became one of the incorporations of that city, and both by royal charters and by acts of parliament exercised the power of granting license to practice medicine. In 1505 the Royal College of Surgeons of Edinburgh was founded, and in 1599 the Faculty of Physicians and Surgeons of Glasgow.

In the sixteenth century there were already established physicians, surgeons and apothecaries. The surgeons were associated in their Guild with the barbers, and the apothecaries with the grocers. While the physicians were men of education, cultured according to the education of the time, the surgeons and apothecaries were not a very highly-educated class.

GILBERT AND HARVEY.

It was at the commencement of the seventeenth century that the original research of two great English physicians, Gilbert and Harvey, completely altered the position of the country in scientific advance. Hitherto there had been no contribution of importance; from this time, however, a complete change came over the scene. William Gilbert—or Gilberd, as it is spelled upon his mural tablet—was born at Colchester in the same year that Vesalius was appointed professor of anatomy at Padua, in 1546. He was educated at Cambridge, and became a Fellow of St. John's in 1561. In 1573 he settled in London, and was subsequently appointed physician to Queen Elizabeth and president of the Royal College of Physicians. His leisure hours were given to chemistry and magnetism. In 1600 he published his *De Magnete*. He established the magnetic nature of the earth, conjectured that terrestial magnetism and electricity were two allied emanations of a single force. He was the first to use the terms "electric force" and "electric attraction," and to point out that amber is not the only substance which when rubbed attracts light objects, and he described how to measure the excited electricity by means of an iron needle moving freely on a point. He described the properties of the magnet, and its attraction, and its direction in the relation of the poles of the earth. The work of William Harvey is well known. There are many evidences that his efforts were appreciated by his contemporaries, though the work which he published, and which has immortalized him, first saw light in Frankfort, Germany, chiefly because of the annual book-fair in that town.

It was about this time that a small body of students assembled at Oxford, in 1645, who was later, in 1662, to be known as the Royal Society. It was established as an association of men interested in the development of mathematical and physical science. It is the oldest scientific body in Great Britain, and one of the oldest in Europe. At one of the early meetings, fifty-two was fixed as the number of the society, persons of the rank of Baron, Fellows of the Royal College of Physicians, public professors of mathematics, physics, and natural philosophy of both universities being supernumeraries. In October, 1660, the king offered to be entered one of the society, and the next year the society was incorporated under the name of Royal Society, the charter of incorporation passing the Great Seal July 15, 1662. Soon after incorporation, the Royal Society published the papers by Malpighi, who by the microscope revealed the minute infinite particles of living bodies.

Somewhat earlier than this Boyle proved that a candle could not burn nor an animal breathe without what was afterward proved to be oxygen gas. These observations were said to have been attentively listened to at the early Oxford meetings of Wilkins and his friends by a young physician, John Mayow, who died at the early age of 34, but not before he had proved that air was made up of two portions—the one heavy, which supports flame and light, which he called fire air, and which was subsequently discovered to be oxygen; the other light, useless for living and breathing, that was the larger portion, which we now call nitrogen.

PRACTICAL MEDICINE.

Practical medicine in Great Britain was developing in this century; a pharmocopeia had been issued; cinchona bark was introduced; botanical gardens were established. The teachings of Lord Bacon, and subsequently John Locke, influenced the direction of thought, while the great learning and superb common sense of that great physician, Sydenham, gave effect to the general advance of this period.

In surgery, the growth was slow, principally through the general want of knowledge of anatomy acquired by dissection; but two Englishmen had distinguished themselves in this branch—Nathaniel Highmore and Thomas Wharton, the former discovering the cavity in the superior maxillary bone, still known by his name; and Thomas Wharton, who discovered the duct of the maxillary gland, which is still recognized as Wharton's duct. In medical politics, a warm contest arose between the physicians and apothecaries, the former accusing the apothecaries of usurping their province, the latter continuing and justifying the usurpation, until the matter was formally settled by the House of Lords in 1703, when it was decided that the duty of the apothecary not only consisted in compounding and dispensing, but also in directing and ordering the remedies employed in the treatment of disease.

The man who of all others at the early part of the eighteenth century gave an impetus to medical education was Boerhaave, who, at the University of Leyden attracted students from all parts. At this time there was practically no systematic medical training in the British Isles, but there were isolated attempts at special instruction. A refugee surgeon, Brussiere, setled in England in the time of Queen Anne, and for the first time gave lectures in anatomy in England. In 1711 Dr. Richard Mead lectured and continued his lectures for four years to the Barber Surgeons. In the same year Cheselden commenced a series of lectures which continued for twenty years. The first Munro opened a similar course at Edinburgh. John Rutherford settled in the same city in 1721. Speaking of him, his grandson, Sir Walter Scott, says, "he was one of those pupils of Boerhaave to whom the school of medicine in our northern metropolis owes its rise." Together with Sinclair, Purvis and Innes, he established a laboratory and taught the rudiments of chemistry and other branches of physics. In 1766 Rutherford was appointed lecturer in medicine, and until 1785 he delivered them in Latin. He founded clinical teaching in Edinburgh. The success was so great that the manager of the Royal Infirmary appointed a special ward to the exclusive use of Rutherford. This laid the foundation of that form of teaching, in which Edinburgh has held proud preeminence.

INCREASED STUDY OF ANATOMY.

Speaking of the history of medicine at this period, Lecky says, "a still more important fact in the history of medicine was the increased study of anatomy. The popular prejudice against dissection which had for centuries paralyzed and almost prevented this study, still ran so high in England that in spite of the number of capital punishments, it was only with great difficulty the civil power could accommodate surgeons with proper subjects, and all publicity was studiously avoided. With such a state of feeling, it is not surprising that the English Medical School in the beginning of the eighteenth century should have been far inferior to that which gathered round the chair of Boerhaave at Leyden."

The birth of chemistry, which may be dated from about the latter half of the eighteenth century, is the greatest scientific advance of the century, but practical medicine also was greatly advanced at this time. As early as 1703, Dr. Richard Mead communicated to the Royal Society an acount of Borrows' discovery of the acarus scabei, up to that time considered to be a constitutional disorder. It was then disbelieved in England, though recognized in Italy as early as 1787. This distinguished physician, of whom Dr. Johnson said, "Mead lived more in the broad sunshine of life than almost any man," was accustomed to drive six horses to Windsor, and he held consultations at coffee houses. Other physicians of whom Dr. Johnson spoke in terms of warm approbation were the elder Heberden, and of his great friend, Dr. Robert James, who did not think it beneath his dignity to take out letters patent for his famous powder in 1746. Dr. Lettsom, one of the most successful of the long roll of Quaker physicians, lived well into the nineteenth century.

Dr. James Lind was one of the thinkers of the century, and deserves to be remembered. He was a surgeon in the navy in 1739, and took his M. D. in Edinburgh in 1742. He published a treatise on scurvy in 1754. More men died of scurvy in the naval wars preceding its publication than were killed in all the engagements of the French and Spanish fleets. The book attracted great attention at home and abroad. He suggested the use of fruit and vegetables and lemon juice. It was not, however, until some forty years later that an order was issued by the admiralty for its use. In 1761 he discovered that the steam of salt water was fresh, and gave a demonstration of the fact before the Royal Society.

The discovery of vaccination is perhaps the most striking landmark of this time. It was quite at the end of the century that Dr. Matthew Baillie, whose labors extended through the first quarter of this century, published his "Morbid Anatomy" of some of the most important parts of the human body. It was the first book on the subject in English, and excelled any of the previous Latin treatises in lucidity. It was the first book in which morbid anatomy was treated by itself. In this work he described ulcers of the stomach and of typhoid. He defined the change of the liver in cirrhosis. He described and differentiated various abdominal cysts and other important pathologic observations. He was a distinguished member of a distinguished family, his mother being a sister of William and John Hunter. He was appointed physician to St. George's Hospital in 1787.

Of the development of practical surgery, it was carried on on less distinct lines in Great Britain than elsewhere, and particularly in Paris, where the Academy of Surgery in 1731 set up a very high standary from the first. We note the brilliant ability of many individual surgeons—such as Cheselden; John Freke, of Bartholomew's, first to treat empyema by incision; Dale Ingram, the first surgeon to treat abdominal wounds on modern lines; the eminence and ability of Percival Pott, who published his works after a severe accident when 43 years of age, and the transcendent genius of his pupil, John Hunter, who was almost the same age before he published his first book; and the sound and scientific work of Cline. All these, as well as many provisional surgeons—such as White, of Manchester; Goch, of Norwich; Hey, of Leeds, and Parks, of Liverpool—helped to establish surgery as a scientific branch of medicine.

In 1745 the Barber Surgeons were dissolved and were corporated as distinct societies. It seems impossible at the present time that they should have lasted so long. Nothing definite occurred to the Apothecaries after the great decision in their favor by the House of Lords, and but little has been written of them in the eighteenth century, save the allusion to Robert Levett in Boswell's "Life of Johnson." The scanty means of education in London, and the absence of medical societies there during this period are also noted. Until the last quarter of a century, there was no means of obtaining a medical education in London. Surgeons and apothecaries were supposed to be able to pick up a sufficient smattering of their work by attending a hospital for a few months, and physicians were educated elsewhere. Some half a dozen took a degree at Oxford or Cambridge, and these alone could become Fellows of the Royal College of Physicians; others, a much larger number, went to Edinburgh and the Scotch universities, Dublin or abroad.

MEDICAL SOCIETIES.

The education of Edinburgh was far ahead of London; medical societies and periodicals flourished there before in the south. There were medical societies in Edinburgh as far back as 1720. In London, there were societies of 1753 and 1764; they were both small societies and disappeared after Hunter's death. The only medical society in England, outside London, was the Medical Society of Colchester, founded in 1774. The absence of societies was much felt by earnest practitioners desirous of progress. Dr. Edward Jenner belonged to a medical society which met at the Fleece Inn, Rodburgh. Papers were read on medical subjects, and the members afterward dined together. At these meetings Jenner read papers on various subjects. He also belonged to another society, which met at the Ship Inn, Alveston.

In London, in 1783, there were five lecturers in anatomy, three lecturers on surgery, and three lecturers on the practice of medicine.

The great medical schools of London and of the provinces have almost all been established since this period, and, indeed, most of them in the present century. Learned societies in medicine from this time became established, and now they exist in all parts of the kingdom.

The eighteenth century closed with a great advance in general science, especially in chemistry and electricity, and some of the leading discoveries of this time are briefly mentioned.

MEDICAL LEGISLATION.

The important legislation of the nineteenth century was the Apothecaries Act of 1815. Previous to this act the education of the medical practitioners of England and Wales was entirely optional on their part, and although many of them possessed degrees or licenses of the universities or colleges, the greater number possessed no such qualification, and many of them were wholly illiterate or uneducated. About the year 1850 a preliminary examination in arts was instituted as a necessary and independent requirement before proceeding to the medical curriculum. In 1858 the Medical Act became law, and by this act the L. S. A. of London was permitted to practice through Scotland or Ireland. The Apothecaries Amended Act passed into law in 1872. Women were admitted to practice in 1876. In 1878 the pharmaceutical chemists were licensed by act.

It is worthy of observation that the state had hitherto not interfered to prescribe the subject-matter, or the minimum standard of medical examination, although there has been at least one attempt of the government of the day to establish a uniform minimum. Under the beneficent legislation of the century, and particularly by the establishment of the General Medical Council, jealousies between the different branches of the profession have mainly disappeared, it is difficult now to realize that at the commencement of the present century it was far otherwise.

The use of wise legislative enactments in the social influence and status of the profession soon became apparent, but its full effects were not evident until many years had elapsed. It is quite within memory that the only qualification recorded in many instances in the annual "Medical Directory" was "in practice prior to 1815." It is not a little singular that the Apothecaries Act has gradually extinguished the apothecary, as then understood. With the better education required, and the institution of examinations, a different class of students were attracted to medicine, and they were rarely satisfied with the apothecary's license, but sought further a surgeon's diploma.

The Anatomy Act of 1842, by growing facilities in the practical studies of anatomy, was one of the most important dates in the medical education instruction of the time. The growth of the medical press commenced with the efforts of W. Sharman in 1767, who in 1810 commenced to edit a periodical which was still in existence in 1815. The foundation of the *Lancet* in 1823 by Thomas Wakley is a landmark in British medicine. Its early struggles have been fully given in its pages of late years, and need not be related here. Among the physicians and surgeons of the present are many that come down almost to our own day, and therefore are more or less familiar.

The address collects some interesting facts, among which are the following:

In 1837 Gerhard, a young American physician, clearly laid down the difference of the two diseases of typhus and typhoid fever. After much doubt and discussion, the question was finally settled in England by Sir W. Jenner in 1849-50.

The credit of recognizing the connection between the acceleration and violent actions of the heart and the enlargement of the thyroid gland, two of the great cardinal symptoms of exophthalmic goiter, undoubtedly belongs to the great Dublin physician, Graves, who, in 1835, pointed out, in a published lecture, that the disturbance of the heart's action is not necessarily associated with organic disease of the heart. Five years later, a German physician, Basedow, published a more complete and elaborate account of the clinical features.

Hughes Bennett first described leucocythemia in 1845. A few weeks afterward Virchow published a case which had been independently observed by him previous to the publication of Bennett's first communication on the subject, and pointed out that the white corpuscles found in the blood were not pure cells, and termed the disease leukemia. A violent controversy sprang up between these two celebrated men and other supporters. Of this Byrom Bramwell says "that while Bennett was the first to observe and publish a detailed case of the pathologic appearances and blood changes, Virchow was the first to give an intelligent explanation of the peculiar alteration of the blood, which is the essential characteristic of the disease."

It is not, perhaps, so generally known as it deserves to be, that William Jeaffreson, of Framlingham, in the county of Suffolk, an East Anglian surgeon, was the first surgeon in England to perform the modern operation of oviariotomy by a small central incision. The circumstances, as recorded in the Transactions of the Provincial Medical Association of 1837, are as follows: "Mr. Jeaffreson in 1833 lost a patient suffering from an abdominal tumor. She died from tuberculous disease of the lungs, and, obtaining the consent of her friends, he made a post-mortem examination, which satisfied him that the tumor could have been removed, and but for the disease of her lungs, her life might have been spared."

In November of the same year, Jeaffreson and his friend, King, attended together a lady in her confinement who had a small tumor. They subsequently advised an operation, and in May, 1836, a central incision was made, about 1½ inch, the cyst tapped, withdrawn, the pedicle secured by ligature, and the ends cut off short. The wound was adjusted by two

sutures, and napkins wrung out in the coldest water were constantly applied to the wound. Sulphate of magnesia was administered every four hours, and all went well until the tenth day, when he was called to his patient at 3 a. m., to find her pulseless with incessant vomiting and hiccough, with griping pains in her body. A stimulating enema, with gr. 2 of opium, gave her speedy relief, and she recovered.

His friend and neighbor, King, at Saxmundham, Suffolk, about ten miles away, operated a few weeks later, with complete success, his incision being somewhat longer—about 3 inches. Two years subsequently a third East Anglian surgeon, Crisp, of Harleston, who lived about twenty miles from Jeaffreson, was also successful, with an incision of 2 inches. These three cases, which were performed by three surgeons in general practice in England, are the more remarkable when we consider that no operation of the kind was attempted in London until four years later, and no ovariotomy was performed in a London hospital until ten years after Jeaffreson's case.

The two great discoveries of the nineteenth century, antiseptics and anesthetics, are briefly alluded to, but no mention is made of the American part taken in the latter discovery. Public health and state medicine is entirely modern. The science of modern military hygiene is credited to Parkes, who was also a great factor in, if not the founder of, the science of modern hygiene. Two centuries ago the mortality of London is said to have been 80 per 1000. At the present time it is only 20. All the special departments which concern the surroundings of man, personal health, food, drink, clothing, hours of labor, management of infancy, prevention of disease, hygiene of the sick chamber, and disposition of the dead, have been the subject of legislation during the present century.

THE SURGEON OF THE NINETEENTH CENTURY.*

FREDERICK TREVES, F. R. C. S.

LONDON, ENGLAND.

The surgeon of one hundred years ago was but a sorry element in social life. In the great towns and cities there were a few practitioners of surgery who were eminent by reason of their scientific work and successful practice. London was then the center of surgical activity, and the prominent exponents of the art were John Abernethy, Henry Cline, Sir William Blizard, Sir Everard Home, Sir Astley Cooper, William Lawrence and Charles Aston Key. The great John Hunter had died in 1793, having accomplished a work which marks an epoch in British surgery. In the provinces the most conspicuous surgeons were Edward Alanson, of Liverpool, and William Hey, of Leeds, while in Edinburgh the position of the leading operator was held for many years by John Bell. A little later in the century we find among the names of prominent men in England those of Sir Charles Bell, Sir Benjamin Brodie, and the ingenious and learned Benjamin Travers.

At the beginning of the century surgery on the Continent was represented by such men as Sabatier, Deschamps, Boyer, and Larrey in France, Scarpa in Italy, Langenbeck, Chelius, and Diffenbach in Germany, and Warren and Physick in America.

Smollett, who was himself in turn an apprentice, an assistant, a surgeon's mate, a practitioner and a graduate in medicine, has furnished a discouraging account of the surgeon, practitioner or leech of his time. He was ignorant, illiterate, sordid, a mere retailer of physic, not above the allurements of money-grabbing, and not without suspicion of dishonest practices, and of a leaning toward the bottle. Smollett's description could not have been true of all his brethren, and there is no doubt he wrote with the bitterness of an unfortunate experience. Launcelot Crab undoubtedly represented a type not yet extinct when the century began, and he must be taken as a forerunner of the cultured and esteemed general practitioner of the present day.

The Surgeon as an Adviser.—One cannot fail to be impressed by the paramount influence which exact knowledge—or the want of exact knowledge—has had upon the attitude of the medical profession. There is no science outside of our own in which there has been, during the stages of development, such an extreme disproportion between the amount of knowledge professed and the amount proved ultimately to be exact and sound. The reason for all this lies more with the sick man than with the man of medicine. The sick man requires absolute and exact knowledge from his doctor. He will accept neither possibilities, doubts nor confessions of ignorance. It is no wonder that in the past the physician made good by fiction what he lacked in fact. The demands of the patient have been hopelessly beyond any power of supply, and the deficiency has been furnished by the products of invention. A good deal of the pretense and humbug with which medical practice has been associated in the past has been forced upon the practitioner by the demands of unreasoning people. With such people the surgeon, in the early part of the century, had more largely to deal than he has to do at the present day, and yet his stock of knowledge could seldom meet the demands even of the reasonable. A false attitude toward his patient was unconsciously forced upon him, and the folly of his pretense to an unattainable learning was apparent to all but the simplest. As an adviser, therefore, he spoke not as one having authority. The surgeon of the present day, as an adviser, is in a position which could hardly have been imagined by his forbears of one hundred years ago. He has to deal with a more enlightened public, with patients whose education enables them to appreciate the nature of scientific problems, and with whom it is possible to discuss difficulties, and to own to lapses of information. The additions made to surgical lore have been so substantial that in many departments surgery is an exact science. There is indeed no longer need to call upon invention to supply such gaps as still indicate the unknown. An intelligent patient is satisfied with the assurance that practically nothing at present is known of the nature and causes of cancer. We have perhaps not quite shaken off the poor vestments of mummery with which ignorance was clad, nor rid ourselves of forms of speech which still pass current for sense. We speak assuredly of the "constitution" and of "states of the system" and of the "supporting of the system." We sanction such terms as "poverty of blood," "diminished vitality" and "sympathetic inflammation." We profess to believe in "tonics," in medicines the swallowing of which will give strength, in "galactagogues," in "alteratives," in "astringents," and in "cooling physic." We profess moreover to "strengthen the lungs" and give "tone to the stomach." The modern surgeon can well afford to dispense with all this empty verbiage, since he can base his opinion upon facts, and can express it in plain words, free from embellishments.

The Surgeon as a Man of Learning.—We can only view with amazement the scantiness of learning and the poverty of equipment of the surgeon at the commencement of the century. He knew little more of inflammation than that it was represented by swelling, heat, redness and pain. He had no glimmer of the possibilities of asepsis. He had no anesthetic, no hypodermic syringe, no clinical thermometer, and no practical means of investigation in clinical chemistry. Bacteriology did not exist, and the treatment of disease by prepared serums would have appeared to him as a wild therapeutic dream. Although vaccination had been introduced in the last year of the eighteenth century, the magnitude and nature of the principle it involved had not been appreciated.

The microscope as an aid to diagnosis played no part in the equipment of the surgeon. He had neither laryngoscope nor ophthalmoscope, and his acquaintance with otology, skin affections and the diseases of women was at the best rudimentary and indistinct. He had only rude medieval orthopedic appliances, and knew nothing of the lithotrite nor of the array of instruments which are now in daily use in connection with surgery. It would seem indeed that there was little for him to do but to open abscesses and sow the seeds of chronic septicemia, to excise tumors, of the structure of which he talked much and knew little, to amputate limbs for diseases he could not mend, and to draw blood whenever doubt existed as to what was best to be done. In 1800 a man could practice as a doctor without passing an examination of any kind. Indeed, one itinerant practitioner is reported to have assumed the title of assistant surgeon on the ground that he had served an apprenticeship to the crutch-maker of a hospital. The examination for the diploma of the Royal College of Surgeons was oral only. There was no examination of patients, and no dissection of the subject. Candidates were required to produce evidences of apprenticeship, of attendance upon anatomical and chirurgical lectures, of having performed dissections, and of having attended the practice of a recognized hospital for a period of six months. In 1813 the period of compulsory attendance at a hospital was raised to one year. The standard of knowledge, however, does not appear to have risen in corresponding proportion, for in 1822 the then president, Sir William Blizard, felt called upon to address the Court of Examiners on certain "tokens of remissness in teachers, and of inattention in students," which had been forced upon his notice. He regrets the remarkable deficiency of candidates in

* Abstract of the Address in Surgery, delivered at the Sixty-eighth Annual Meeting of the British Medical Association, held at Ipswich, August, 1900. [From advance galley-proofs kindly furnished by the Editor of the British Medical Journal.]

anatomical and physiological information, and concludes by deploring that there is a "corresponding darkness of mind relating to the symptoms, seat, causes, and rational treatment of diseases and injuries." At the commencement of the century there was, indeed, no systematized medical education. The training of the surgeon was paltry, casual and inefficient. His preliminary education was meager. It was necessary that he should be able to read and write and pretend to some smattering of Latin. So far as hospital practice was concerned, his attitude as a learner was well expressed by the phrase, "He walked the hospital." The institutions which he thus attended for a period of six months were in a state of squalor as regards administration, sanitary arrangements and nursing, and well deserved the abuse which was lavished upon them.

The Surgeon as an Operator.—During the nineteenth century the surgeon, as an operator, passed through a rapid metamorphosis, and has now reached at least the level of the unexpected. Time has shown that even in 1800 there was a technic in operating which was as little like the technic of to-day as are the slashes of a cutlass when compared with the studied movements of a foil. It may have been surmised that twenty centuries would have exhausted the methods by which a limb could be cut off. Yet in 1800 modes of amputation were in vogue which are now regarded as uncouth, and there was not in use a ready and efficient means of checking bleeding.

The operator of olden times certainly possessed many qualities which are now falling into abeyance, his success depending largely on his daring, on the alertness of his eye, the steadiness of his nerve and the rapidity of his movements. He stepped into the arena of the operating theater as a matador strides into the ring. Around him was a gaping audience, and before him a conscious victim, quivering, terror-stricken and palsied with expectation. His knife was thrust through living flesh and acutely-feeling tissues, and the sole kindness of his mission was to be quick. There is less need for such qualities now. The dramatic element in surgery has gone with the men who unconsciously fostered it. The operating theater has changed from a shambles to a chamber of sleep. The surgeon's hand can move with leisurely precision, and theatrical passes of the knife are favored only by those who have not yet learned that mere brilliancy is no measure of success. It is little wonder if the older surgeon became rough and stern, if his sense of feeling became dulled, and if the sympathetic side of his nature suffered some suppression. Indeed, contemporary accounts are apt to represent the operator of preanesthetic times as rough almost to brutality, and as coarse both in his conduct and in his utterances. His language, it would appear, savored of the cockpit, and the hasty flourishing of his knife led occasionally to unintended mutilations.

An Improved Knowledge of Anatomy.—Among the surgeons of the early part of the century there were many competent anatomists, and not a few who could lay claim to be deeply versed in that science. Among the latter were such men as Astley Cooper and William Lawrence. Still, in the education of the average surgeon the study of anatomy did not play a prominent part. Anatomy was largely taught by means of public demonstrations, the teacher dissecting while the student looked on. The knowledge acquired was scant and superficial, and had little practical basis. The science of anatomy was well advanced at the commencement of the century, but it was not taught to the common student. "Quain's Anatomy," first published in 1828, was a single small volume of 700 pages, without illustrations. The facilities for acquiring a practical knowledge of anatomy were not only few, but were hampered by many sordid difficulties. Anatomical schools were regarded with disfavor and unconcealed suspicion by the public, and were surrounded by a ghoulish romance in which rifled graves and unseemly dealings with the hangman played a pungent part. Indeed, the teacher in an anatomical school found himself involved in a squalid and disreputable traffic. Among the many qualifications needed for success in operating, a practical knowledge of anatomy, as acquired by repeated dissection, is conspicuous. Such knowledge as the surgeon needs must be learned from the patient use of the scalpel and forceps. The dissecting room is the surgeon's nursery. The older surgeon often lacked confidence in operating, failed in initiative, clung only to formulated methods, and a departure from accepted lines was attended with fear and hesitancy. Ignorance encouraged in the rash heroic passages of the knife, and in the timid an over-cautious and dangerous fumbling. In preantiseptic days much ill attended the nervous fingers creeping clumsily into the unknown.

A Readier Method of Arresting Hemorrhage.—At the commencement of the century the means employed for the control of bleeding were numerous, and included the ligature, the suture, styptics of many kinds, and actual cautery. In applying the ligature the vessel was picked up by forceps and tied as at the present day. The instruments used were those of Diffenbach, Assilini and Liston. The bleeding from the vessel was not necessarily controlled by the forceps when in position. The general rule in amputation was to apply a tourniquet and to ligature the individual arteries after the limb had been removed. In the excision of tumors each vessel was secured as it was divided. When it is remembered that operations were carried out without anesthetics, it will be understood that the older surgeon had an absolute terror of bleeding, and was driven to undesirable shifts to avoid the need of facing it. Hemorrhage was expected, and a liberal loss of blood was considered a necessary adjunct to every major operation. Tourniquets were employed freely and with considerable harshness. Raw surfaces were bathed with styptic solutions which were often destructive in their action, or at least opposed to primary healing. The actual cautery to sear the bleeding area was in some request, and every well-equipped operating-theater kept its stove and cautery irons in constant readiness. The écraseur was of later date. Its invention was due to Chassaignac, and it was freely used in England until quite recent times. It was employed for the removal of growths of different kinds, but its most baneful employment was as a means for excising the tongue. It is scarcely to be believed that within the period of the introduction of anesthetics the tongue has been torn out of the mouth by means of a loop of hemp or wire which strangled it at its root. The *écraseur* will remain in the archives of surgery as the insignium of the incompetent and the timorous, and will stand out as a blot in an otherwise bright period of progress and enlightment. The shadow of this medieval instrument has been slow to fade, and like the ovarian clamp and the *serre nœud*, it clung about the confines of reasonable surgery, and hindered the development of the operations of ovariotomy and excision of the uterus.

At the present day the surgeon has little dread of hemorrhage. He makes larger use of the precautionary ligature of vessels; he is operating on an anesthetized patient, and can proceeed with slowness and deliberation, and the treatment of hemorrhage has been simplified, if not indeed rendered complete, by the introduction of the pressure-forceps, the most valuable addition which has ever been made to the surgeon's appliances.

The Employment of Anesthetics.—The changes that the discovery of anesthetics has wrought in the personality of the surgeon, his bearing, methods, and capabilities are as wondrous as the discovery itself. He is undisturbed by the harass of alarms, and the misery of giving pain. Time now counts for little, and success is no longer to be measured by the beatings of a watch. The mask of the anesthetist has blotted out the anguished face of the patient, and the horror of a vivisection on a fellow man has passed away. Thus the surgeon has gained dignity, calmness, confidence, and, not least of all, the gentle hand. Anesthetics have, moreover, greatly extended the domain of surgery, by rendering possible operations which before could have been only dreamed about. The introduction of anesthetics has not only developed surgery, but it has engendered surgeons. It has opened up the craft to the many, for in the preanesthetic days the qualities required for success in operating were to be expected only in the few.

The Introduction of Antiseptic Measures.—When the century was young the touch of the operator was the touch of a tainted hand; the balm he poured into the wound was poisoned, and he himself undid the good his science strained to effect. It is sad to think that behind the earnest man with the ready knife there stood a shadow which rendered hopeless his kindliest effort, and which only too often proved to be the veritable shadow of death. The change has been great, and its greatness lies in its littleness, for it is bound up with no more than this: that the surgeon has learned to be clean, and has become aware of the potency of little things. The demands of the antiseptic treatment have made him minutely careful, distrustful of any aid that he cannot control, and suspicious of any semblance of error.

The Surgeon in the Future.—The changes which have swept over the world of surgery have extended the possibilities of the art, and have, at the same time, added a host to the ranks of those who practice it. Thirty years ago the roll of such as could claim to be accomplished operators was very small. The greater deeds of surgery were limited to cities and the larger towns. The general practitioner seldom took up the scalpel except in minor necessities. Even in London the list of consulting surgeons was meager. In the hospitals of the

metropolis the number of operations performed in the year would be less than is now the quotum for a month. At the close of the century, however, the disposition of affairs is wholly altered. Where there was one surgeon there are now ten, and the work of the operator has extended. The more ambitious performances of surgery are no longer restricted to great centers, but are carried out in the little town, in the cottage hospital, and even in the cottage itself. The general practitioner is laying claim to operate upon his own patients, and is carrying out his intention in no hesitating manner. The days of the great operator are rapidly passing away. Indeed, the practice of pure surgery is now becoming common to the many. The man who excels conspicuously as an operator will always attain such eminence as his ability deserves, but the exclusiveness of the practice of operative surgery is quietly vanishing. In every great change there must—at first, at least—be some undesirable developments, and the wider distribution of the practice of operative surgery may lead to the occasional performance of major operations by men who are not justified in undertaking them. There is also some evidence that the reaction in the matter of operative surgery is to some degree extreme, and that we are in danger of passing from the policy of doing too little to the policy of doing too much. Operations were too few in the past, but they may be too frequent in the present.

So many have been the artificial aids to clinical investigation which recent science has introduced that it comes to be a question whether the natural acumen of the surgeon will not deteriorate in proportion as he fails to encourage that particular learning which clings to the finger tips of all great diagnosticians. The loss is to be deplored, for if there be one point of excellence which stands before all in the qualifications of the perfect surgeon, it is bound up in that refined sensibility, that critical perception, that inestimable cunning which lies in the surgeon's touch. A considerable amount of skill is demanded in the examination of complex fractures, of lesions of deep-seated bones, and of injuries about joints. What was to be learned of these troubles had to be acquired by a tedious manipulation demanding considerable refinement. The surgeon now submits the inquiry to a demonstrator of the Roentgen rays. The skiagraph, although its value is much exaggerated, embodies a substantial gain, but it is to be discounted by the loss of the great element in education which it is slowly replacing.

An obscure tumor presents itself; no longer is the surgeon compelled to trust to the acuteness of his inquiry, and his patient review of all the physical details of the mass. For what his ready fingers may have learned can be substituted the findings of the exploratory incision, the trochar and the aspirator. Here once more an advantage is minimized by a loss.

An abdominal swelling is brought under notice. Its features are obscure, but much of the uncertainty of outline can be dissipated by a cultured hand, which, with infinite patience and repetition, has learned to construct a reality out of a shadow. The problem can now be solved at once by an exploratory laparotomy. By this operation a great advantage is gained, but an opportunity to add to one of the most refined forms of learning is lost. The value of the exploratory incision is beyond question, but among the signs of the times it is impossible not to notice a tendency to resort too readily to this means of solution. A suspicious ulcer presents itself for diagnosis. In such case is it well to devote time to a precise and tedious inspection of its edges, and to a careful tactile examination of its base, and to check what is discovered by results laboriously gained from like inquiries? Is it not simpler to take a scraping of the affected surface and to submit it to a microscopist?

Finally, there are cases which present symptoms hard to interpret at any superficial inquiry. Is it worth while in such to undertake an exhaustive critical research, and to submit the whole to a trained judgment? The quest would no doubt develop habits of observation and powers of weighing evidence; but the process is slow, and an inquiry carried out in a bacterial laboratory will clear up all doubts.

Those, therefore, who are concerned with the education of the surgeon of the future would do well to still cherish this ancient power, and to foster a memory of the fact that surgery is, in its very essence, a handicraft, and that in all that he does the surgeon's great endeavor should be to make his own hands self-sufficing.

It is sad to think that this hardly acquired faculty dies with the possessor of it, and never was this more vividly presented than it has been by the loss which surgery has sustained in the death of Sir James Paget. One can picture the great surgeon composed in his last sleep, and can see the once busy fingers lying lifeless on the white sheet, and then comes the wonder at the wealth of learning, at the exquisite cunning, at the refined sense which lay dead in the hand.

An individual loss does not however, hinder the general tide of progress. Advance in such a work as ours depends upon the uneventful work of the whole body, and is only accentuated by the achievements of the prominent few. The movement is the movement of a multitude in which individuality is, at a distance of time, little to be distinguished, and in which personal eminence contributes a smaller factor than the present is ready to acknowledge. Those who stand forth as the leaders of the advance are merely the elect of the common body, and the representatives of a wide intellectual franchise. Even he who startles the world as a discoverer has often done little more than give expression to what was already nascent in the multitude. So as one great surgeon after another drops out of the ranks, his place is rapidly and imperceptibly filled, and the advancing line moves on with still the same solid and unbroken front.

The continuity of progress is undisturbed by the uncertainties of human life, and, as one writer has well expressed it—

"No work begun shall ever pause for death."

Therapeutics.

Cholera Infantum.

Lesarge (*Montpellier Méd.*) advises:

1. Strict diet, not more than 200 grains of milk, or even nothing but cracked ice to allay thirst. Ingestion of milk aggravates the digestive troubles. When gastrointestinal symptoms have almost disappeared, feeding is to be begun gradually, the milk at first being iced.

2. Give 20 to 30 grams of cognac or rum per day, in four to eight doses, either pure with ice, or in black coffee, one teaspoonful of the alcoholic liquor to a tablespoonful of coffee.

3. Hot baths (98 to 100 F.) lasting ten minutes, morning and evening. Add a little mustard during the last four minutes. Gentle friction with warm cloths or cotton wool. Hot-water bottle.

4. At first, while there is fever and no sign of collapse, give .01 gm. calomel in a teaspoonful of water every two hours for twelve hours; or the following:

℞ Tinct. op. camphor. (paregoric) ..... gtt. x
Acidi lact. ..... ℥ss
Syr. simpl. ..... ʒiv
Aquæ ..... ℥iii
Ess. menth. pip. ..... gtt. ii
M. Sig. One teaspoonful with ice every half hour.

Or the following mixture of HCl and lactic acid:

℞ HCl. or acidi lact. ..... ℥ss
Aquæ ..... ℥iiss
Syrupi ..... ℥iii

During the period of algidity, .2 to .25 gm. caffein in water, given in two or four doses, has a marked diuretic effect and heightens the arterial pressure.—*Pediatrics.*

Vesicular Eczema of Scrotum.

According to Wittzack, it is not advisable to use a powder, since, when mixed with the secretion from the affected surface, it cakes and falls off. The application of compresses wet with an astringent solution is recommended, as for instance:

℞ Aluminii acetat. 3v
Liq. plumbi subacetat. ..... ℥ss-℥iiss
Aquæ ..... ℥iii
M. External use.

If the epithelium is gone it is best to employ a mixture of one or two parts of white precipitate ointment with Lassar paste. It will often be found helpful to cauterize by means of a solution—10 to 50 per cent.—of caustic potash applied on a cotton tampon; the caustic is then washed off and the part covered by Lassar paste. Or nitrate of silver—10 to 20 per cent. solution—may be chosen.—*Med. News.*

Boric Acid Intoxication.

R. B. Wild, after citing a number of cases, including some of his own, distinguishes two forms of intoxication from boric acid—one in which a large quantity of the drug is rapidly absorbed from the alimentary canal, from a serous or other cavity, or from an extensive raw surface; in these cases vomiting and diarrhea, general depression, and partial paralysis of

the nervous and muscular systems occur, and may cause death. A rash is noted in many instances, especially when the patient recovered or lived some days after the absorption of the drug. The other class of cases results from the administration of boric acid or borax in comparatively small doses for long periods, and the symptoms appear at a variable time after the commencement of the drug. In some of these cases it is mentioned that the kidneys were diseased, and the author gives as a possible reason for the immunity to the injurious effects of boric acid its very rapid elimination by healthy kidneys.

Furthermore, it is possible that cases of intoxication occur more frequently than is at present recognized. Boric acid may unwittingly be taken in food and cause a toxic eruption which may be mistaken for eczema, psoriasis, or exfoliative dermatitis.

It may be noted that a 1/500 solution corresponds to 175 gr. per pint of the acid, a very large dose for an infant on milk diet and one likely in some cases to produce disturbance of the alimentary canal. It should also be ascertained that the milk ordered in cases of kidney disease is free from excess of boric acid or borax. The use of boric acid or the borates in surgery and their internal administration ought to be carefully guarded in patients with diseased kidneys, and immediately discontinued on the appearance of dermatitis or other toxic symptoms. In suspected cases examination of the urine may afford valuable evidence of the presence of the drug.—*The Lancet.*

Compound Tincture of Benzoin in Enteric Fever.

Dr. James C. Potter, of Spennymoor, Durham, writes the *British Medical* as follows:

Lately I have had under my care several cases of enteric fever with excessive diarrhea. I have in these cases tried a mixture of compound tincture of benzoin and water, with marked success. I start by giving a dose of 5 minims of the tincture every two hours, and if the diarrhea does not decrease in twelve hours I then double the dose. In all the cases, after twenty-four hours' administration, I have found marked benefit; the diarrhea decreases, the stools are not so offensive, the temperature is decidedly lowered, and the patient feels very much more comfortable. I attribute the success in these cases to:

1. The internal antiseptic property of the drug.
2. The mixture forming a protecting coat to the inflamed bowel.
3. The antipyretic action of the drug.

Malnutrition in Infants.

The combination of a yolk of egg and olive or cottonseed oil made into an emulsion is found very useful in cases of rickets or chronic malnutrition in infants. The emulsion may be made as follows:

℞. Ol. olivæ.....3iii
Glycerini 3ss
Yolk of two eggs
M.

Make an emulsion and add one-half minim of creosote to each dram. Occasionally it is better to use a smaller amount of creosote when the agent is not well borne by the stomach. A full teaspoonful of the emulsion is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*The Practitioner.*

Dyspepsia Accompanied by Acne.

Dr. Mitour (*Révue de Thérap.*) recommends for dyspepsia accompanied by acne, light meals frequently repeated. The food should be well masticated and of a kind easily digested. Bread, spiced meats, preserved fish, pastry, butter, and fatty foods should be avoided. Alcohol and milk are also injurious. Water is the best drink and should be taken sparingly with meals. Medical treatment has three objects:

1. To stimulate the secretion of hydrochloric acid, there should be given before meals sodium bicarbonate, with sodium and potassium sulphate in small doses, or ipecac, or condurango.

2. To stimulate muscular action of the stomach the tincture of nux vomica may be given after meals.

3. To prevent fermentation, naphthol, benzol, betanaphthol, or bismuth salicylate is indicated. Sodium sulphate and calomel are recommended for constipation with intestinal inflammation. Hydropathy with abdominal massage, gastric lavage and electricity have given excellent results in certain cases.—*Med. Record.*

Arsenic and Belladonna in Chorea.

In a recent issue of the London *Lancet*, Overend concludes an article on this topic in the following summary:

1. Belladonna appears to be most beneficent in recent cases, but its influence is sometimes very marked in severe forms.

2. In obviously rheumatic cases arsenic in large doses may be given a trial or may be combined with belladonna from the first. Belladonna may act by diminishing the excitability of the nerve-centers or by imparting an improved tone to their vascular supply.

3. In the wards of a hospital it is perfectly justifiable to give to a child as much as 30 minims or more of the tincture of belladonna every four hours for ten days or even longer. Certain precautions are necessary. The patient should be kept in bed and the urine should be daily measured. Small doses of potassium acetate may be added if it becomes much diminished or if the eyelids show any puffiness. In one child nocturnal incontinence occurred, and the dose was lessened. The occurrence of the popular erythema, which leaves raised circular lumps for a time, does not necessitate any diminution of the dose. Dryness of the throat and swelling of the parotid, should they occur, are only temporary. The influence of the belladonna makes itself felt after about four days. Should no visible improvement occur before the tenth day it would be useless to continue with it. But in eighty-seven cases treated, belladonna was of benefit, and is certainly worthy of further trial. As soon as the movement becomes trivial or occurs only during exertion, it is better to omit the belladonna, to commence massage of the affected muscles, and administering cod-liver oil and syrup of phosphate of iron or other tonics. The arsenic may be continued for a week or longer.

Bad Breath.

℞. Acidi salicylici
Saccharı
Sodii bicarb., āā.....gr. xv
Alcoholi 3i
Ess. pip. menth.....gtt. x
M. Sig. 3i in wineglassful hot water and gargle once or twice daily.

℞. Potassii permang.....gr. vi
Aquæ 3vi
M. Sig. Gargle frequently. (Also good for swelling of axillæ, fetor of the sweat of the feet, etc.) —*Palmer.*

Sedative Enemata in Painful Affections of Posterior Urethra.

In cases of very painful urethro-cystitis with tenesmus and spasm of the internal sphincter, as well as in cases of acute prostatitis and epididymitis. Dr. P. Scharff, of Stettin *(Med. Week.)*, has found that small morphin or belladonna enemata exert a more rapid and more powerful action than the ordinary sedative suppositories in common use.

For this purpose he prescribes one of the following mixtures:

℞. Morphinæ hydrochloratis..... 3
Atropinæ sulphatis..... 01
Aquæ dest.....100
M. For external use.

Five grams (one teaspoonful) is injected into the rectum and the analgesic action of the enema begins to manifest itself within from two to fifteen minutes. In cases in which the pain is associated with fever, Dr. Scharff injects into the rectum as often as three times a day, if necessary, 5 grams of the following solution:

℞. Cocainæ hydrochloratis..... 1
Antipyrini
Sodii salicylatis, āā..... 10
Aquæ dest..... 200
M. For external use.—*Am. Medico-Surgical Bulletin.*

Syphilis and Paresis.

An abstract in the *Quarterly Journal of Inebriety* gives the following significant passage from a paper by Dr. Williams:

Practically 75 per cent. of all cases of general paralysis exhibit proof of primarily syphilitic infection. The history of all cases is the "typical man of the world"—ambitious, fond of society and high living, a light sleeper and a heavy drinker; then come delusions and well-marked paresis. Four cases were

noted where syphilitic teeth were prominent, although no history of syphilis could be obtained. Each one had used spirits freely. The pathologic conditions in chronic inebriety, syphilis and paresis are alike. The thickened membrane and meningeal changes are the same. The neurosis which predisposes to insanity, paresis or inebriety may be of syphilitic origin. A history of using alcohol exists in all cases of paresis, and it is significant of contributing causes not yet studied.—*American Medico-Surgical Bulletin.*

Hot Air as a Hemostatic.

The jet of hot air from a Holländer apparatus directed upon the bleeding surface of a kidney, liver, or severed blood-vessel, will arrest the hemorrhage by the formation of an eschar commencing around the edges and gradually spreading over the entire surface, mechanically checking the flow, in experiments upon animals, and Schneider concludes that it would be equally effective on man. The heat is only 30 degrees at 5 mm. from the apparatus, and hence is not sufficient to injure the organ. He found steam less effective and less convenient, for several reasons, masking the field of operation, etc.—*La Semaine Méd.*

Summer Diarrhea of Children.

The important dangers to be emphasized are too frequent feeding, overfeeding and the use of improper foods.

Holt states that during the hot weather it is an excellent rule to diminish each meal by at least one-third and make up the deficiency with water that has been boiled; to give water freely between—and to observe regularity in—feeding.

℞ Hydrargyri chloridi mitis.....gr. i |06
Saccharі lactis.....gr. xii |72

M. et ft. chart. No. vi. Sig. One powder every half hour.

Indication.—Initial treatment to cleanse the intestinal tract.

℞ Ol. ricini.....3i 4|
Tinct. cinnamomi.....gtt. i |06

M. Sig. To be given at one dose.

The cinnamon in the above prescription serves to detract from the disagreeable taste of the oil. It is also rendered more palatable by administering it to children in a little milk.

In these cases irrigation of the colon may be practiced with a solution of boric acid—3 per cent.—or with a saline solution —3ii to the quart—a temperature of 80 F. When the stools contain mucus or blood, tannic acid—1 per cent. solution—can be substituted. Two or three irrigations can be made during the first twenty-four hours, then once a day thereafter.

℞ Eudoxin .....gr. xv 1|

Ft. chart. No. xv. Sig. One powder three times a day before each meal—for a child of 1 year or older.

Eudoxin contains 52.9 per cent. of iodin and 14.5 per cent. of bismuth. It is odorless and tasteless, and can be given in a little boiled water.

℞ Tannopin .....3i 4|

Ft. chart. No. xv. Sig. One powder three times a day one-half hour before nursing.

Tannopin is composed of tannin, 87 per cent., and urotropin, 13 per cent. It is a light-brown powder almost insoluble in water, and practically tasteless.

Dr. G. Joachim's experience with it is that it is innocuous and can be given without risk to the smallest infant in doses of 4 to 7 grains, three or four times a day.

℞ Bismuthi subnitratis |
Pulv. acaciæ, āā.....3ii 8|
Aquæ destil., q. s. ad.....ʒii 64|

M. Sig. Shake well. Teaspoonful every two hours.

Indication—After alimentary tract is free from all irritants.

℞ Saloli |
Cretæ preparatæ, āā.....gr. xv 1|

M. Ft. chart. No. xv. Sig. One powder every two hours for a child 2 years of age or older.

℞ Naphtholini .....gr. xxiv 1|5
Pulv. acaciæ.....3i 4|
Aquæ destil., q. s. ad.....ʒii 64|

M. Sig. Shake well. One teaspoonful every three hours for a child 1 year of age.

In the opinion of Hayward and Butler the antiseptic drugs give better results in the subacute and chronic diarrheas which subsequently follow summer diarrhea. They maintain that salol should be given when the symptoms point to affection of the upper bowel and naphtholin when the colon is chiefly involved.

℞ Bismuthi subnitratis.....3iss 6|
Bismuthi salicylatis.....gr. xv 1|
Tinct. rhei aromatici.....3ss 2|
Aquæ destil., q. s. ad.....ʒii 64|

M. Sig. Shake well. One teaspoonful every three hours.

A combination of some of the bismuth preparations is recommended, as in the above, but none of them is superior to the subnitrate.

℞ Bismuthi salicylatis |
Tinct. opii deodorati, āā.....gtt. xv 1|
Syrupi simplicis .....ʒss 16|
Aquæ cinnamomi, q. s. ad.....ʒii 64|

M. Sig. Shake. One teaspoonful every three hours for a child of 1 or 2 years.

Opium preparations should be avoided as much as possible. They are not indicated except when pain accompanies the diarrhea.

℞ Tannigeni |
Saloli, āā.....gr. xv 1|

M. Sig. One powder every four hours.

Tannigen is a compound of tannin and diacetyl, which is broken up only in an alkaline solution. It exerts its astringent action upon the duodenum and is strongly recommended by Bachus in cases in which an astringent is indicated. Moncorvo advises its combination with salol, bismuth salicylate or other antiseptics.

℞ Tinct. opii camphoratæ |
Syrupi rhei aromatici, āā.....ʒss 16|
Aquæ calcis, q. s. ad.....ʒii 64|

M. Sig. One teaspoonful every three hours for children over 3 years of age.

This is indicated when there are frequent bowel movements accompanied by pain.

℞ Papain (carica papaya).....gr. xv 1|

Ft. pulv. No. xv. Sig. One powder fifteen minutes before nursing, three times a day—to aid digestion of food.

℞ Betanaphthol bismuthi.....3i 4|

Ft. chart. No. xv. Sig. One powder every four hours to a child 3 years of age.

This is best given in a little boiled water when the stomach is free from food.

℞ Antipyrini .....gr. viiss |5
Syrupi aurantii corticis |
Aquæ destil., āā.....ʒiss 48|

M. Sig. One teaspoonful every two hours for a child 1 year of age or older.

The above may be given when there is gastric or intestinal disturbances accompanied by slight fever and in diarrheas of nursing children during dentition.

℞ Tinct. krameriæ |
Tinct. opii camphoratæ, āā.....3ii 8|
Misturæ cretæ, q. s. ad.....ʒii 64|

M. Sig. Teaspoonful every three hours for a child of 2 years.

Krameria possesses the same astringent properties as tannin and may be employed for the same purposes.

℞ Bismuthi subnitratis.....3i 4|
Pepsini saccharati .....3ss 2|
Zinci oxidi.....gr. iv |25

Trit. et div. in chart. No. xii. Sig. One powder every four hours.

Tompkins (*Medical Record*) speaks favorably of the following as an intestinal antiseptic in these cases:

℞ Hydrargyri chloridi mitis.....gr. ii |12
Zinci sulphocarbolatis.....gr. iii |18
Bismuthi subnitratis .....3ii 8|
Pepsini saccharati.....3ss 2|

M. et. ft. chart. No. xii. Sig. One powder three times a day for a child 1 year of age.

Crandall states (*Archives of Ped.*) that opium in the diarrhea of children is contraindicated:

1. In the first stage of acute diarrhea, before the intestinal tract has been freed from decomposing matter.

2. When the passages are infrequent and of bad odor.

3. When there is high temperature or cerebral symptoms present.

4. When its use is followed by elevation of temperature or the stools become more offensive.

It is indicated:

1. When the stools are frequent, with pain.
2. When the passages are large and watery.
3. In dysenteric diarrhea together with castor-oil or a saline.
4. When there is undigested food in the stools and the bowels act as soon as food is taken into the stomach.

Medicolegal.

Seventy-Five Hundred Dollars for a Leg.—The Supreme Court of Minnesota holds, in the case of Thompson vs. Great Northern Railway Company, that, while certainly liberal, an award of $7500 damages to a conductor of about 40 years of age for the loss of his right leg, which had to be amputated below the knee is not so excessive as to justify any interference with a verdict therefor.

Gonorrhea Evidence of Illicit Intercourse.—The Supreme Court of Pennsylvania holds, in the case of Baker vs. Baker, where a wife sued for divorce, that if the husband had such a venereal disease as gonorrhea during the continuance of the marital relation, it must be regarded, in the absence of explanatory proof, as evidence of the fact of illicit connection with other women than his wife, there being no proof in the case that she was afflicted with that disease.

To What Dying Declarations Must Relate.—Dying declarations, being a substitute for sworn testimony, the Supreme Court of Appeals of West Virginia holds, in the case of State vs. Burnett, must be such narrative statements as would be admissible in evidence had the dying person been sworn as a witness. If they relate to facts to which the declarant could have testified, they are admissible in evidence. But mere dying declarations of opinion, which would not be received if the declarant were a witness, the court says, are inadmissible.

Abortion Compared with Second-Degree Murder.—The Supreme Court of Appeals of West Virginia declares, in the case of State vs. Lilly, that there is no crime more heinous against humanity or the Creator, than that of abortion. As compared with it, second-degree murder, it says, is commendable; for while the one has but one victim, and destroys only the body, the other has two victims, and destroys both soul and body. The proof of abortion, it also explains, rests usually on circumstantial evidence. And where an instrument is used to commit it, the court states that it is not necessary to a conviction to show the character of the instrument. More particularly, it holds, in this case, that, where the crime of abortion is fully established, and the circumstantial evidence establishes beyond a reasonable doubt the guilt of the accused to the satisfaction of the jury, the verdict will not be set aside because the evidence fails to show the character of the instrument, or the time when used to produce the abortion.

Appliances for Hospitals No Longer Duty Free.—The Massachusetts General Hospital has but just recently succeeded in obtaining from the United States Circuit Court of Appeals an affirmance of the decision which it secured in the circuit court, holding that surgical instruments designed and adapted for use in practical surgery are scientific instruments within the meaning of paragraph 585 of the tariff act of 1894, and that thereunder they were exempt from duty, when specially imported in good faith by the hospital, for use in its clinics and its training school for nurses. Yet this is to be of little or no value to such institutions in making importations under the tariff act of July 24, 1897, if the Board of United States General Appraisers at New York is correct in its construction of paragraph 638 of the latter act. It points out that this is materially different from said paragraph 385, in its designation of the character of the society or institution permitted to import such instruments free of duty. A hospital, even with incidental educational features, such as the training of nurses and the giving of medical instruction to students, it holds, is not, within the meaning of said paragraph 638, an "institution incorporated or established solely for . . . educational . . . purposes;" nor is it a "college, academy, school, or seminary of learning;" and hence, it holds, surgical appliances imported for the use of such an institution are not entitled to admission free of duty under said paragraph.

Within Province of Medical Expert.—The United States Circuit Court of Appeals says, in Denver & Rio Grande Railroad Company vs. Roller, that the rule is well settled that a medical expert may form and express an opinion of the nature and cause of the bodily or mental condition of his patient—her ills, symptoms, pains and suffering—derived from his own knowledge, from his treatment and examinations, although based in part upon her statements and complaints made at different times as to her pains and suffering, and, in this connection, to give his opinion whether her injuries are liable to be permanent, and whether her present condition is due to or caused by sickness, injury, accident, or violence. Again, it says that when a hypothetical question assumes the existence of any state of facts which the evidence directly, fairly and reasonably tends to establish or justify, and does not transcend the range of evidence, it is proper to permit such questions to be answered, and it is not necessary that the questions shall embrace or cover all the facts in the case. But, it agrees, it would be reversible error to admit the answer of expert witnesses to hypothetical questions which assume the existence of facts upon which no evidence is offered.

Support of Insane Husband.—It is recognized by the Supreme Court of Iowa that it is the purpose and intent, under section 2297 of the code of that state, to make the property of those liable for the support of a public insane patient responsible over to the county for hospital expenses. The provision of this section relating to the liability of relatives imposes it upon a class, "those legally bound for the support" of the patient. Consequently, it has to be determined in each instance whether the individual sought to be charged is a member of such class. Now, is the wife obligated by law for the support of her husband? If not, she is not within the class made liable. Certainly no such obligation the court says, rested upon her at common law. Nor does it consider that she is made liable for the support of her husband by section 3165 of the Iowa Code, which imposes a liability upon her for family expenses. In other words, it holds that her liability for the support of her husband is not general, but is limited entirely to such matters as are of purely family benefit. Wherefore, it holds that maintaining the husband in an insane hospital is a kind of support for which the wife is not responsible, under the only section which imposes upon her any liability for the husband's expenses. The policy of legislation which requires one who has contributed in taxes for the support of the hospitals for the insane, to make full remuneration for care and treatment when calamity compels their use, is so doubtful in character, the court adds, that it does not care to aid it by construction, unless required by the manifest purpose and intent of the lawmakers. If it is the intent to subject the property of the wife to the payment of a claim of this kind, it should be clearly stated.

Judge of Necessary Frequency of Visits.—The Appellate Court of Illinois, second district, holds proper, in Ebner vs. Mackey, the following instructions: "The jury are instructed as a matter of law that the physician attending a patient is the proper and sole judge of the necessary frequency of the visits to his patient, so long as the patient is in his charge. And in an action for his services the physician is not required under the law to prove the necessity of his making the number of the visits that he makes and for which he is seeking compensation." In justification of this, the court mentions that there was no proof in this case that the physician came when he was forbidden to come, or that he was discharged and continued to attend thereafter, but that, instead, it was shown that the decedent, against whose estate a claim for medical services had been filed, and his wife had called him and acceped his services without question. In other words, the court holds that where a physician is called by a party to treat him or his wife, and he takes charge of the case and attends from

day to day, evidently, in view of his responsibility for skilful and proper treatment, he must in the first instance determine how often he ought to visit the patient, and so long as the party employing him accepts his service and does not discharge him or require him to come less frequently, or fix the times when he wishes him to attend, he can not afterward be heard to say that the physician came oftener than was necessary. But were a person injured in a railway collision brought suit for damages, and sought to recover among other things his expenses for medical attendance, of course, the court says, he could not recover against the railroad company for all medical attendance he had chosen to have, but for such only as was necessary in curing his injuries.

Sufficiently Continuously Confined to House.—The strict letter of the contract of insurance against loss of time by sickness under consideration in the case of the Columbian Relief Fund Association vs. Gross, the Appellate Court of Indiana admits, should probably be taken as providing that benefits were to be paid only for the time the beneficiary was totally disabled from sickness, continuously confined to his house and under a physician's care. But it says that it can not agree with counsel for the insurer that the acts of the insured in going out of the house, under the directions and advice of a skilful and competent physician, to go to the latter's office for medical treatment, or even to get from twenty minutes to half an hour's exercise in the open air in his yard or on the pavement about and near his residence, was a violation of the conditions upon which he was to receive indemnity. Conceding such acts to be a violation of the strict letter of the contract, the court holds that they were not a violation of the spirit and true intent and purpose of the contract. It points out that the very acts complained of were done for the purpose of restoring the health of the insured, and thus ending his right to sick benefits. And it would be unreasonable, the court maintains, to compel a person so insured to place himself under a physician's care, and then deny him benefits for submitting himself to that physician's treatment. Furthermore, an agent of the insurer having requested that a particular physician be employed, and such physician having been employed, the court holds that on that account, especially, the insurer could not be heard to complain, though it says that it could not have been heard to complain had the insured followed the advice of a skilful and competent physician selected by himself.

Power to Regulate Sale of Cigarettes.—Whether dealing in and selling cigarettes is that kind of a business which ought to be licensed is, considering the character of the article sold, the Supreme Court of the United States holds, in the case of Gunderling vs. the City of Chicago, a question for the state, and through it, for the city, to determine for itself. An ordinance providing reasonable conditions upon the performance of which a license may be granted to sell such article, it declared, does not violate any provision of the federal constitution. Nor does it consider it a valid objection to an ordinance that it partakes of both the character of a regulation and also that of an exercise or privilege tax. So long as the state law authorizes both regulation and taxation, it says it is enough. The ordinance in question, which has obtained the sanction of this court, as well as previously of the Supreme Court of Illinois, in this same case, provides for the issuance of licenses by the mayor, upon application first made to the commissioner of health, and submitted to the latter, with his opinion as to the propriety of granting such license, accompanied by the evidence furnished by the applicant of good character and reputation, and upon the mayor himself being satisfied that the applicant is of good character and reputation and a suitable person to be intrusted with the sale of cigarettes, or that this is true of the person or persons in charge of its business, if the applicant be a corporation. It also requires a bond for $500 to be given, conditioned upon the observance of all state laws and city ordinances in force or that may be passed with reference to the sale of cigarettes, and imposes a license fee of $100 a year. But nothing contained in the ordinance, it expressly provides, shall be held to authorize the sale of cigarettes containing opium, morphin, jimson weed, belladonna, glycerin, or sugar. And having or exposing for sale, or offering to sell any cigarettes at any place within the city, without having first procured the license provided is made punishable by fine.

The Right of Property in Medical Records.—At a recent meeting of the Society of Legal Medicine, according to the Paris correspondent of *The Lancet*, M. Brouardel brought forward a most interesting point in reference to a matter upon which he had been consulted. A medical man died and his only son, also a medical man, entered into possession of his father's house and carried on the practice. He was anxious to consult certain notes and observations accumulated by his father which were stored away in the consulting room. But his step-mother (*belle-mère*) as co-heiress refused to let the son make use of the notes, ostensibly on the plea that she was anxious to avoid any violation of professional secrecy. M. Brouardel was of opinion that there would be no violation of secrecy, but simply a continuation of the trust from the first medical man to the second, who succeeded and who would take over the medical observations collected by his predecessor. A legal expert, however—namely, M. Danet—held a different opinion, and thought that all the notes and case-books should be burned. In face of this difference of opinion the question should be left to the courts to decide. In the course of the discussion at the Society of Legal Medicine M. Ladreit de la Charrière gave it as his opinion that a man who sells his practice has no right to communicate details as to the past medical history of his clients, because they may choose to go to some other medical man than the purchaser of the practice. M. Rocher said that French law did not recognize the sale of practices. *A fortiori* then, a medical man had no right to hand over to his successor details of patients without their consent. He agreed with M. Danet that the documents should be burned. M. Brouardel protested against his view, for if whenever a practitioner died all his notes were to be destroyed great injury would be done to the patients themselves and science would be deprived of a very valuable mine of collected knowledge. The matter was in the end remitted to a special committee, on the motion of M. Brouardel.

How Seriousness of Injuries Is to be Settled.—The appellate division, second department, of the Supreme Court of New York, holds that it was reversible error to permit physicians, who were examined as medical experts, to testify, in the case of Stoothoff vs. Brooklyn Heights Railroad Company, as to whether the plaintiff's injuries were serious. The only open question in the case was as to the amount of damages which he was entitled to recover from the defendant for those injuries. The physicians referred to, two in number, had apparently examined him for the sole purpose of testifying, and had given evidence, based necessarily, to some extent, upon subjective symptoms, to the effect that he was suffering from a severe sprain of the muscles or ligaments of the lumbar region; that the muscles on the left side of the spinal column were in a condition of spasm, which the slightest touch would exaggerate; and that there was a sprain or wrenching of the spine. Now, the court says it was entirely competent for the physicians, in addition to stating what they found on the physical examination of the plaintiff, to state fully and in detail the nature and extent of his injuries, their effect upon his person and his system, the pain and other suffering or inconvenience to which they would subject him, the nature of the treatment required, and its probable results, and their opinion of the permanency of the injuries and their effects, so far as they were able to give it with reasonable certainty. With this information it thinks that it would be as possible for the jury as the physicians to determine whether the injuries were serious, and to fix the precise degree of seriousness of the injuries in the plaintiff's case, and with special reference to his life and occupation, as they were required to do by law in order to assess the damages. On the other hand, it says that the jury would be aided little if the plaintiff could rest upon the general characterization of his injuries by his physicians as "serious" and the defendant in turn depend upon an equal or greater number of physicians who would characterize them as "trivial," while all effective review of the propriety of the result would be precluded. The nature of the case, it holds, required no such result.

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THE ETIOLOGY AND SYMPTOMATOLOGY OF RUBEOLA.

While rubeola bears some resemblance to both measles and scarlet fever, and has been considered as a mild variety of one or the other of these diseases, it is now pretty generally agreed that it is an independent affection, one attack of which usually confers protection from a subsequent attack of the same disease, but not from a subsequent attack of measles or scarlet fever, while the latter, in turn, confers no protection from rubeola. The disease pursues a mild and short course, generally without serious complication or sequel, and its greatest importance resides, perhaps, in the danger of confusion between it, on the one hand, and scarlet fever and measles on the other. Some interesting facts of an etiologic and symptomatologic character noted in the course of contemporaneous epidemics of rubeola and measles, are recorded by Tobeitz[1].

The epidemic of rubeola began in December, 1898, and terminated early in July, 1899, 719 cases in all being observed, and reaching its height in February, when 275 cases occurred. The epidemic of measles began in June, 1898, and continued until May, 1899, 3273 cases coming under observation, the largest number, 614, in January, 1899. It was seen that the predisposition to measles was in general much greater than that to rubeola. The cases of the latter were pretty evenly distributed between the two sexes, although after the period of puberty the disease appeared to be a little more common in females. Measles was the more common disease until the age of 6, and rubeola the more common after that period of life. This distribution is partly due to the fact that measles having occurred in a large number of cases in early life, the patients were protected from subsequent attacks later in life. The school was clearly shown to be an especially frequent medium for the conveyance of the infection, the number of cases coming under observation declining with the advent of the summer vacation and again increasing with the resumption of school sessions. Second attacks of rubeola occurred in eighteen cases—2.5 per cent.—while second attacks of measles occurred in but fifteen cases—0.46 per cent.

It was not found that the predisposition to infectious diseases in general, or recovery from such diseases, increased the predisposition to rubeola. Among 719 cases of rubeola there were only 146, 20.6 per cent., in which there had been previous infectious disease within two years. Such information as could be gathered with regard to the period of incubation of rubeola indicated that this is extremely variable, and apparently not fixed, but dependent upon individual and extrinsic influences.

A study of the symptomatology in 80 cases disclosed the presence, almost unexpectedly, of no other manifestations than the exanthem and the enlarged glands. Although it is possible in almost all cases of measles to determine where and when infection took place, it was rarely possible to do so in cases of rubeola. No symptoms were observed during the period of incubation. The enanthematic stage was in but few cases attended with catarrhal symptoms referable to the upper air-passages and the conjunctiva, while in some there was also slight diffuse redness of the pharyngeal structures. The irregular rose-red enanthem, as large as the head of a pin, that has been described as of significance in the differentiation from measles, was not observed. Almost unexceptionally the cervical and post-cervical glands were found enlarged, and with especial frequency and characteristically those over the mastoid process, during the course of the disease also in children that had previously exhibited glandular enlargement. Not rarely some of the enlarged glands were slightly painful. Fever and catarrhal symptoms were generally absent during the stage of exanthem, or scarcely worthy of mention. No case was attended with complications.

The exanthem generally appeared in the form of small spots, with large efflorescences, beginning in the face, and extending in a few hours to the remainder of the body. The distribution and the density of the eruption exhibited marked individual variations. In two cases the eruption was so dense and so fine as to resemble wholly that of scarlet fever, but apart from slight fever at the beginning, and enlargement of the glands, no other symptom of scarlet fever was present, and the eruption disappeared as quickly as the usual form of exanthem. Slight pigmentation of the affected skin was observed in numerous cases, but never desquamation. Four cases presented large spots, principally confined to the face and the extremities, and of long duration. These slight variations are, however, to be explained by temporal, local, or even individual conditions acting upon the biology of the hypothetic, pathogenic micro-organism.

1 Archiv f. Kinderheilk., Bd. xxxviii, H. 5 u. 6, p. 386.

STATISTICAL STUDY OF CARCINOMA OF THE LIP.

Loos[1] presents statistics of 565 cases of carcinoma of the lip treated in v. Brun's clinic. The figures cover fifty-five years, and the present study is a continuation of Wörner's work, which dealt with 305 cases in the period between 1843-84. Loos now adds 260 cases and brings us down to 1898. Some of the principal facts are recapitulated here in order to show the undoubted value

1. Beitr. zur Klin. Chir., 1900. B. cxxvii, p. 57.

of careful overhauling of material of this kind as well as the eminent desirability of better systems for recording the work of our large surgical clinics—a matter that we believe is now greatly neglected in not a few centers of surgical activity in this country. There is undoubtedly a singular dearth in our periodical literature of careful studies of common surgical affections covering long periods and dealing with the accumulated observations of large clinics. Such reviews throw much light upon the course of disease and upon the value of operative and other forms of treatment.

The figures of Loos show that carcinoma of the lip is more frequent in men than in women—85.5 per cent. of his cases were men, 14.5 per cent. women. The lower lip was involved in 534 cases, the upper only in 31. The average age is 60 years; cancer of the lip may occur at any time between the ages of 22 and 80, but the maximum of frequency lies between the sixty-sixth and seventieth years of life. There is no essential difference in the rate of growth in the different periods of life. Sixty-three per cent. occurred in agricultural people. It may be comforting to smokers to learn that this mode of using tobacco does not bear any evident relation to labial carcinoma. Heredity seems to be of little import also. A history of an insignificant trauma is common. The usual starting-point is on the red aspect of the lip, but without reference to any particular part of this surface. The time between the beginning of the growth and operation averages eighteen months in the case of the lower lip and three years in the upper. Submaxillary and submental glandular metastasis occurred in three-fourths of the cases, and metastasis usually took place from three to six months after the appearance of the tumor. Distant metastases were rare.

Of the 534 carcinomas of the lower lip, 484 were operated upon and 50 were not. The unoperated cases were most of them unoperable when they came under observation. Healing and cosmetic and functional results of the operations are said to have been satisfactory. Relapse occurred in 33 per cent. of the cases involving the lower lip, the average length of time after operation at which relapse took place being six months. Only one-tenth of the relapses occurred after three years, and in these instances the carcinoma may have been of new growth. Operation on relapses gave favorable results in 11.7 per cent., on second relapses in but 1.1 per cent.; showing that even here life is undoubtedly prolonged by operation. The mortality from operations was 6.2 per cent. from 1843-1885, from 1885-1898 0.4 per cent. General results are well shown in this tabular statement:

	1843 till 1885.		1885 till 1896.	
	No.	per cent.	No.	per cent.
Living	25	10.2	65	46.1
Dead without return	102	41.4	28	19.9
Living with return	0	0	6	4.3
Dead with return	103	41.9	41	29.1
Dead from operation	16	6.5	1	.6

In other words, from 1843 till 1885 the result was favorable in 51.6 per cent., unfavorable in 48.4 per cent; from 1885 till 1898 favorable in 66 per cent., unfavorable in 34 per cent.—a gain for the latter period of 14.4 per cent. In the carcinomas of the upper lip the result was favorable in 72.2 per cent., unfavorable in 20.8 per cent.

The reliability of these statistics must be regarded as almost beyond question, because accurate information in regard to subsequent events in the cases operated on was secured in all but ten instances—a remarkable success.

VENOUS THROMBOSIS AS A COMPLICATION OF CARDIAC DISEASE.

In the "Festschrift" in honor of Jacobi is an important article on this subject by William H. Welch. He first describes an instance in a girl of 17 years, with chronic mitral and aortic endocarditis following acute articular rheumatism, and giving rise to regurgitation and eventually to cardiac insufficiency. During the last days of life a painful edema of the left arm made its appearance. Post-mortem, in addition to the cardiac lesions and their usual secondary effects, an infectious —streptococcus—thrombus was found filling the innominate, subclavian, axillary, and lower parts of the jugular vein. He then gives the clinical history of three other, more or similar cases from Dr. Osler's wards, but without post-mortem examination. In one case, a case of mitral stenosis, thrombus of the left jugular, axillary, subclavian, and innominate veins gave rise to a hard, painful edema, lasting for nearly three months before gradually disappearance set in.

From the literature Welch collected reports of twenty-three cases of peripheral venous thrombosis in cardiac disease. From a study of the twenty-seven cases thus grouped together he finds that in twenty-three the thrombosis involved the large veins of the upper extremities or the neck, or both, mostly of the left side; only four were thrombosis of the veins of the lower extremities. He suggests that probably many thromboses of the veins of the lower extremities are overlooked because of the greater edema of these parts in uncompensated heart disease. Of the twenty-three cases of thrombosis of the veins of the arms, neck and chest, the large majority—17—occurred in the female sex; nearly one-half of those whose ages were stated were between 15 and 30 years of age; in twenty the valvular lesion was mitral, of a chronic character, the cases of mitral stenosis, with or without insufficiency, taking the lead. "The preponderance of females and of patients under middle age is thus, at least in great part, explained." In most of the cases the thrombosis appeared during failure of compensation. The veins of the right side alone were affected in but two cases; of the remaining twenty-one cases fourteen were unilateral, seven bilateral. The superior vena cava was thrombosed in six cases. The commonest point of origin of the thrombus was the bulb of the left internal jugular vein. Chronic disease of the veins evidently is of little import in the causation of this form of thrombosis. The prominent local symptoms were pain, tenderness, edema and distended veins; the extent

and distribution of the edema varied considerably in the different cases, and the swelling was often hard. Nineteen of the twenty-three cases ended in death, the grave prognosis being mainly the natural result of the extreme failure of compensation of the valvular lesion during which the thrombosis develops. It will be seen that venous thrombosis of the arms and neck, especially of the left side, in cardiac disease forms a fairly distinct group with features of special interest, and this is the main reason for calling attention to Welch's interesting article.

As regards the causation and special localization of venous thrombosis complicating cardiac disease, Welch lays stress on the one hand upon disturbances of the circulation especially liable to affect the veins of the left side of the neck, the greater length and obliquity of the left innominate vein hindering the return flow in this vein (Hanot and Parmentier), the difficulty being further increased by pressure on the left subclavian vein from the dilated left auricle and dilated pulmonary vessels in mitral disease; and on the other hand, he emphasizes the eddying motion of the blood set up in heart disease in the bulbous enlargement of the lower end of the internal jugular and in the adjacent veins by the coming together of blood-currents from different directions and with different velocities and pressures. These conditions explain why certain veins are the seat of election for thrombi. Based upon the presence of streptococci in the first case studied, Welch suggests that bacteria probably constitute the exciting cause of this form of thrombosis.

THE ASSASSINATION OF KING HUMBERT.

Regicide has been shown to have been committed, in a large proportion of cases at least, by persons of weak or unbalanced minds. This was notoriously the case with the assassins Guiteau and Prendergast in this country, who worked without accomplices, following out the dictates of their own insane delusions. In times of great excitement it is very natural to suppose that some ill-balanced individual without being actually insane might commit a crime and the responsibility be somewhat questionable under the circumstances. When, however, such a crime is the result of a conspiracy of a number of individuals, as in the case of the assassination of President Lincoln and of the Emperor Alexander, it is somewhat different. The assassination of King Humbert, which has just occurred, appears to belong more to this class than to that of the irresponsible lunatic homicides. The assassin in this instance seems to have been an adherent of a body that is at present endorsing his action, and the suspicion of a widespread conspiracy is certainly justified in such a case.

The question arises: How far are we to consider the possible lack of balance of the individual as mitigating his responsibility? We may say that "the anarchistic virus entered his ill-balanced brain," but if we are to excuse him what are we to say of the sources of this virus? It is a psychologic fact that in combination men will commit crimes that individually they would abhor, and in time of popular furor or hysteria we may look for just such acts. There are some signs that at this end of the nineteenth century we are passing through a sad period of popular hysteria, of which this event may be one of the evidences. It is not so wide a step between the socialism that leads a prominent professor of economics to justify the violence of strikes and the anarchism that advocates the murder of kings simply because they are kings. The trouble is that such crimes, in such conditions, become contagious; a suicide club or a band of anarchistic assassins may only start the ball, but they will find many really irresponsible imitators who will keep it rolling. This is one important aspect of the case from the medico-psychologic point of view, but it shows a danger that statesmen and every good citizen should guard against. The death of King Humbert is to some extent a danger sign to every one in a prominent position, we trust not a serious one, but one that nevertheless should not be ignored.

Another question arises in connection with this subject, and that is: Are not some of us going a little too far in seeing a pathologic side to all criminality? It is very easy to say that criminals, as a class, are degenerates, as compared with non-criminals. We can also say that every one that does not follow a rational utilitarian moral standard is defective in his mental balance or self-control. We are not arguing here for the condign punishment of lunatics, but simply for a reasonable estimation of responsibility which is not always lost because the individual possesses certain mental and physical defects. There is sometimes a sentimentalism even in medicine that has very little practical use in such cases as these.

EIGHTEENTH CENTURY MEDICAL EDUCATION IN ENGLAND.

The presidential address of Dr. Elliston before the British Medical Association, which we give in abstract in this issue, contains a very interesting history of the leading facts of British medicine from the earliest times down to the present. Some of these are medical curiosities and all will be of interest to our readers. It seems a little strange to learn that medical education was so backward in England up to so recent a period and that the regular medical college hardly existed before the middle of the eighteenth century, if indeed it did then. From the history of American medicine, comparing it with this, we can see that the early medical pioneers of this country were fairly representative of their confrères in Great Britain. Dr. Osler's prophecy, noticed in one of the recent issues, that the time will come when transatlantic students will look to this country for their inspiration, is, we hope, in the near future.

LODGE PRACTICE.

Lodge practice seems likely to become a factor in politics in British Columbia. The local medical society

of Victoria passed a resolution agreeing not to consult with lodge doctors, which was agreed to by all the local profession. Then the lodges proposed to import physicians, but were saved this trouble by the defection of two members of the association. This, of course, is only a partial relief and now they are proposing to make a political issue, the repeal of the provincial medical-practice act, which they claim puts it in the power of the local profession to debar from practice whomsoever they may choose. This insinuation of unfairness by the medical examining board is resented of course, but it will be used probably for all it is worth as a political pretext. One feature of the trouble is the acrimonious correspondence in the newspapers by one of the two seceding physicians, Dr. Ernest Hall, who has some reputation for his claims of curing insanity by gynecologic operations. So far as we can judge from the reports, the members of the local profession are acting in a perfectly legitimate and commendable manner and the outcome will not be to their disadvantage if they work harmoniously and stay together.

THE CALL TO TEACH.

The *Post-Graduate*, in its July issue, remarks that it has no sympathy with the "mute inglorious Miltons" of the medical profession who want to be professors and can't. Every man, it says, "has his chance here." We should think he had. THE JOURNAL once made an estimate of the proportion of medical professors to the general profession in one of our great medical centers, and found that about one physician in every five and a half held some position on one or more medical faculties, and some had three or four. This, too, without counting the extreme irregulars outside of the three recognized schools of medicine, and the carpenters, waiters, *et id omne genus* who are on the faculty rosters of the diploma mills. The remark of Dr. Austin Flint, quoted by the *Post-Graduate*, that there is always "a place in some medical college for every man who could really teach," is the very mildest kind of truth; it does not cover half the facts. The question as to the effect of this facility on the welfare of the medical profession generally is hardly ever raised, certainly not by the multitudinous professors. A call to teach, like a call to preach, can not be disregarded; there are comparatively few that have it on their conscience that they have ever refused one, and the medical propaganda goes merrily on.

THE PROGNOSIS OF TUBERCULOUS MENINGITIS.

Recovery from tuberculous meningitis has been recorded quite a number of times. In the older cases of this kind bacteriologic confirmation of the diagnosis is lacking, but in many the clinical course of the disease and the name of reporter offer a certain guarantee of its correctness. In some cases subsequent autopsy disclosing calcified tubercles in the spinal and cerebral leptomeninx has placed the diagnosis beyond doubt. Freyhan, and recently, Henkel[1] have recorded cases of recovery from clinically typical tuberculous cerebrospinal meningitis in which the diagnosis was clinched by the demonstration of tubercle bacilli in the cerebrospinal fluid obtained through lumbar puncture. In Henkel's case, a 10-year-old boy, there was optic neuritis and paresis of the ocular muscles. The disease presented more or less typical and active symptoms for about two weeks, when a gradual improvement began, some fever persisting for several weeks. The first attempts to walk showed a tendency to tumble to the right, but this also passed away. In the fourth week the hair began to fall out. The treatment consisted of a few small doses of calomel and daily baths. The prognosis of even tuberculous meningitis consequently admits of a ray of hope.

TRADES UNIONISM AND PHYSICIANS.

As a natural suggestion from recent events that have largely occupied the attention of the public, it may not be out of place to casually notice the charge frequently made, and recently elaborated by a labor periodical, that the medical profession is organized and acts on trades-union principles. The chief basis for this is the desire and effort of the profession for laws regulating medical practice, which, the trades unionist assumes, correspond to his own methods. If trades unions required nothing more than that a man should know his business, and did everything in their power to multiply their competitors; if they set up free dispensaries for giving out their services gratis; if they never struck, and, least of all, when their services were most demanded, and did a large part of their work gratuitously for the deserving and the undeserving, made no limits as to hours, but served willingly at all times, pay or no pay, then there might be some comparison between them and the medical profession. As the case stands, it is the grossest misrepresentation to say that there is any resemblance between them whatever. A strike of doctors in time of an epidemic or emergency would be a sight for gods and men, an interesting object-lesson of the beauties of the procedure, and would call into action the vicarious virtue of the social reformers as nothing else could. Even an attempted organization against the dead-beats to refuse them credit, works up the lay press into virtuous indignation against the inhumanity of the mercenary doctors. No one would wish the medical profession to repudiate any of its honorable traditions or become less altruistic in its motives and methods. It would be directly in the right line, however, if a very large proportion of its members could adopt a self-denying ordinance against taking professorships and multiplying medical colleges.

THE PERCEPTION OF THE BLIND.

In the *Doctors' Magazine* for July is an article by Frederick Boyd Stevenson giving an account of certain

1 Münch. Med. Woch., 1900, No. 23.

inmates of the Illinois Industrial Home for the Blind, who, though totally blind, possessed the faculty of recognizing objects, to a certain extent, without the apparent aid of the other senses. Thus, one could tell when he was approaching a tree or a curbstone and could even recognize the different individuals in the room. But if he was expecting to meet persons he could not tell whether any one was in the room or not. Similarly, if the electric light was turned on unexpectedly he was aware of it, but if it was announced beforehand he could not recognize the difference. Attention or expectation seemed to destroy the peculiar perceptive faculty possessed by the individual, which seems, therefore, to depend somewhat on the untrammeled exercise of all the powers of unconscious sentience or of some special as yet unrecognized faculty called into action by the deprivation of sight. This last is what is most readily assumed, but whether correctly is a question. Stevenson adopts this view and quotes some reported facts of somnambulism as being at least suggestively explanatory. Just how perceptions reach the conscious centers is not always clear and there may be possibilities as yet unthought of. The case of the perception of light through the nose reported a year or two ago is in point. It hardly seems necessary, however, to admit more perhaps than a sharpening of the unconscious sensory cerebration which we utilize in every movement and function, but which in the full use of our senses may not be called into action. This may not be an adequate explanation, but it suggests itself as being as reasonable as any. The perceptions of the blind are a subject not yet fully exhausted by the psychologists.

FAITH CURE, CHRISTIAN SCIENCE, ETC.

Every generation, perhaps every decade, seems to have its fad or fads, and the recent past has not differed from remote antiquity in this respect. A certain period evidently is required for the public to realize its mistakes, but such a fondness does it have for the mysterious and the unreal, so anxious is it to be deceived, that it no sooner drops one delusion than it takes up another. We have thus had within the present century Perkinism, Mesmerism, Keelyism, Eddyism, faith-cure, osteopathy, etc. We have, perhaps, entered on an era of "suggestive therapeutics." Most of those mentioned are dead or already dying, and we must await with patience the advent of the next. Sometimes the public awakes, thinks, lets its passion run unbridled and overcome good judgment and then something happens. In an Ohio town a self-styled divine healer of the Dowie stripe, under whose ministrations several infants had died and other disastrous consequences had resulted, was taken from his hotel, stripped naked, and was about to be tarred and feathered, when the police interfered, although the man was almost killed in the conflict. An illustration of the extremes to which the faith-cure delusion may be carried was brought to light recently in Philadelphia in consequence of the death of a child 7 months old from convulsions during dentition, for which no medical attention was provided, because, in the language of the man to whom its care was entrusted, "it is against our religious principles. We are children of God, and believe in the cure of disease by prayer." In reply to an inquiry by the coroner, who was called upon to investigate the cause of death, as to who had suggested the establishment of the "Orphanage" in question, the answer came: "The Lord by His spirit." The jury to whom the case was submitted took a less spiritual view of the matter and rendered a verdict of death due to criminal neglect, and the principals were committed to prison to await trial on this charge. Even this, however, failed to cause dismay, as "deliverance through faith" from such a little annoyance was confidently hoped for. Instances of the sort related have become far too common, but similar summary treatment would go a great way to diminish their frequency.

Medical News.

A BUREAU of American trained nurses has been established at 102 rue Vaugirard, Paris, under the direction of Mrs. W. H. Booth.

THE DRUGGISTS and physicians of Hamburg, Germany, have appointed a committee of six members to devise measures to check the spread of quackery.

AT THE Centenary of the Royal College of Surgeons July 26, diplomas of honorary fellowship were presented to Drs. W. S. Halsted, Baltimore; W. W. Keen, Philadelphia; R. F. Weir, New York; J. Collins Warren, Boston; I. H. Cameron, Toronto; and Sir W. H. Hingston and T. G. Roddick, Montreal.

AN ORDER drafted by the marine-hospital service was promulgated by the President July 28, establishing a national quarantine against Cape Nome and Dutch Harbor, Alaska, on account of epidemic smallpox at these points. Supervising Surgeon-General Wyman has notified the surgeons at these places of this order and has directed its strict enforcement.

DR. S. A. KNOPF, of New York, has been awarded the prize of 4000 marks offered by the International Congress on Tuberculosis, of Berlin, for the best essay on "How to Fight Tuberculosis As a Disease Among the Masses." Eighty-one essays were offered in competition. We believe this is the second international prize on tuberculosis that has been won by Dr. Knopf.

RED CROSS NURSES.—Dr. Anita Newcomb Magee, lieutenant in charge of the corps of female army nurses, says that there are now 145 army nurses, practically all of whom are on duty in the Philippines, or on their way there. A bar to the sending of army nurses to China has been suggested, namely, that as China is not a party to the Geneva convention, she might not treat nurses as non-combatants.

THE BRITISH MEDICAL ASSOCIATION.—From the various reports submitted to the council of the British Medical Association and which were presented at the annual meeting this week, we abstract the following: The number of members of the British Medical Association last year was 18,185; during the year 957 new members were elected, 231 died, and 529 resigned or were taken off the list for arrears, leaving on the books

18,382, a net increase for the year of 197. The total revenue for the year ending Dec. 31, 1899, was £43,263, about $216,000. The expenditure was £36,981, leaving a surplus of £6272, a little over $31,000. The excess of assets over liabilities at the end of 1899 was £75,994, about $374,000. There are thirty-eight home Branches, which are reported in a healthy condition with membership increasing. The Colonial Branches, however, are causing the council anxiety, as these are not thriving, not a few being dormant. The Western Australian Branch is flourishing, and has successfully influenced medical legislation.

ILLINOIS.

Dr. Gurdon A. Potter, Belvidere, has been appointed a surgeon by the Navy Department.

Cases of ivy poisoning have been so numerous recently in Evanston that the inhabitants have begun a war of extermination on the dangerous plant.

Chicago.

Dr. L. Harrison Mettler is on a trip through the Northwest with his bride.

St. Luke's Hospital has received a bequest of $5000 from the late Mrs. Effie McKindley.

Merck & Co. announce that they have opened a branch house at 227 Randolph street, under the charge of Mr. J. W. Parry.

Dr. E. R. Moras, who was married July 20 to Miss Anna Stamm, is in Europe on his wedding journey. They will remain until the first of December.

The Diet Kitchen, which was opened in June for the purpose of supplying pure food and milk for infants, has thus far fed 414, and the number applying for medical aid and food is rapidly increasing.

The report of an epidemic of smallpox at Chicago Heights has been investigated by Dr. Meyerovitz, of the State Board of Health, who finds one case of smallpox and sixteen cases of scarlatina. On the principle of locking the stable door after the horse is stolen, the citizens have held a mass meeting to consider the improvement of the present primitive sewer-system.

ALEXIAN BROTHERS' HOSPITAL.

The annual report of this hospital for the year 1899, has just been issued. It shows that the patients in the hospital on Dec. 21, 1899, numbered 174, and the number received during the past year was 2406, making a total of 2580 patients treated at the hospital during 1899. This shows an increase in the number of patients at the hospital during 1898 of 15 per cent. The report also shows that during 1899 1714 patients were cured, 354 improved, 86 not benefited, and 184 died. Those received at the hospital during the year in a dying condition numbered eighty-two. Of the total number of patients, 1549 were single, 745 were married, 286 were widowers. Among them were 1486 Catholics, 948 Protestants, 39 Hebrews and 107 who professed no religion at all. The average age of the patients was 47½ years.

ILLINOIS RIVER WATER.

Peoria, and not Chicago, is said to pollute the water of the Illinois river. The State Board of Health has made sanitary investigations of the Illinois river and its tributaries both before and after the opening of the drainage canal. The preliminary report, based on analyses made by Professor Long, of the Northwestern University Medical School, shows that the waters of the lower Illinois river, at least, are not polluted by the flow from the drainage canal. He considers the cattle-shed filth of Peoria and not the Chicago sewage as the main factor in the pollution of the lower river. This is a confirmation of the results obtained after analyses of water from the Chicago River and Illinois and Michigan Canal, made in 1879, by Dr. S. C. Stanton, who found marked increase in organic impurity below towns and cities, which extended, however, for only a short distance. At Summit, for instance, only eight miles from Bridgeport, there was less organic impurity than was found the same distance below Joliet.

HEALTH DEPARTMENT.

Chief Sanitary Inspector Young has started a vigorous crusade against unsanitary rag and junk shops. Warning notices have been sent to all dealers, and should they not comply with the regulations of the Department, arrests will speedily follow.

No case of smallpox has been reported during the past week and the Isolation Hospital contains only one patient, who will probably be discharged in a few days.

The weekly bulletin for the week ended July 26 still shows an exceptionally low mortality. The total deaths from all causes were 438, a reduction of 16 from the previous week's record, and of 108 from the corresponding week of 1899. The comparative death-rate per thousand for the same periods is, 12.33, 12.78 and 16.24. The deaths of males were 247, of females 191. Under one year of age 153 died; between 1 and 5 years, 43; and over 60 years, 56. The principal causes of death were: Acute intestinal diseases, 121; consumption, 61; heart diseases, 26; Bright's disease, 20; pneumonia, 18; nervous diseases, 15; cancer, 10. No deaths from sun-stroke were reported; 4 committed suicide and 19 deaths were due to violence. Births reported during the week were 565; 288 males and 277 females.

The contagious cases reported were 47, of which 22 were scarlatina, 23 diphtheria and 2 measles. The Department laboratory analyzed 557 samples of milk, 5.20 per cent. of which were found below grade.

The report of mortality for the month of July shows a very marked improvement over the corresponding month of last year. The total deaths were 2069 or a mortality of 13.91 per thousand, as compared with 2360, or 17.39 per thousand mortality in 1899. These figures are based upon a population of 1,750,000, and the death-rate per 1000 would be correspondingly lower if the figures of the census of 1900 had been used. The deaths by sexes were: July, 1900, males, 1149; females, 920; July, 1899, males, 1332, females, 1028. Under 1 year, 616 died; between 1 and 5 years 224; and over 60 years 300 in July 1900; the figures for July, 1899, were respectively 795, 328 and 295. The principal causes of deaths for the month in 1900 and 1899 were as follows: Acute intestinal diseases, 447-702; apoplexy, 27-24; Bright's disease, 96-91; bronchitis, 42-45; consumption, 237-198; cancer, 69-80; convulsions, 53-57; diphtheria, 41-47; heart diseases, 133-125; nervous diseases, 149-124; pneumonia, 92-116; typhoid fever, 26-41; scarlet fever, 10-20; suicide, 25-37; violence, 110-135.

In commenting on these figures, Dr. F. W. Reilly, assistant commissioner of health, remarks:

"As compared with July, 1899, there is a decrease of 30 per cent. in the deaths of infants and children under 5 years of age, and of 41 per cent. in the deaths from the impure-water diseases. It is yet too early to demonstrate by the disease and death-rates the effect of the heavy rainfall of last week, when nearly an inch and a half fell in eleven hours. The records and charts of the Department for years show that such a rain, without exception, polluted the water-supply and caused a marked increase of acute intestinal deaths during the following seven or eight days and of the typhoid-fever deaths within the following four or five weeks. According to the chemical examinations the water-supply has not been polluted by last week's rain, nor has there yet been noted any increase of the impure-water diseases. There is no obvious cause for this gratifying departure from the usual results of a sewer-flushing rain other than the action of the drainage channel. From the standpoint of the public health and the saving of human life the cost of the channel is the best investment Chicago ever made."

PENNSYLVANIA.

Philadelphia.

Dr. Henry D. Beyea has sailed for Paris.

Dr. Albert E. Roussel will spend the summer at Cape May.

During the summer Dr. Henry Beates and Dr. H. A. Hare will cruise along the Atlantic coast.

At the last meeting of the Royal College of Surgeons of England, held July 27, Dr. W. W. Keen, of this city, was elected to honorary fellowship.

THE CORNER-STONE of the new annex of St. Mary's Hospital was laid July 25. The new addition will cost about $100,000.

ON JULY 30 an entertainment was given at Swarthmore for the benefit of the Rush Hospital for Consumptives and the Pay Hospital for Contagious Diseases.

DR. JOHN H. GARVIN and DR. GEORGE ERETY SHOEMAKER have been appointed gynecologists to the Presbyterian Hospital to serve six months each. A vacancy was caused by the death of Dr. R. M. Girvin.

DR. H. W. STELWAGON, clinical professor of dermatology in Jefferson Medical College, has gone to Europe. After attending the International Medical Congress in Paris he goes to Copenhagen to study the treatment of cutaneous diseases by concentrated light rays, at the Finsen Institute.

MORTALITY STATISTICS.

The number of deaths reported for the week just closed was 514, a decrease of 50 over the previous week, and an increase of 33 over the corresponding period of last year. The principal causes of death were: apoplexy, 13; cancer, 13; cholera infantum, 75; consumption, 75; pneumonia, 24; sunstroke, 26; marasmus, 31; diphtheria, 8; scarlet fever, 1; typhoid fever, 12.

ADULTERATED FOODS.

Two wholesale dealers were, during the past week, held in $400 bail, both being charged with selling adulterated spices, and one with selling "renovated" butter. In this connection it is said that the Bureau of Health of this city has received instructions from Harrisburg to act with the state authorities in suppressing the practice of adulterating foods.

FREE FROM SMALLPOX.

Colonel J. Lewis Good, chief of the Board of Health, announces that the last case of smallpox confined in the municipal hospital has convalesced and that the city is now entirely free from the disease. The quarantine in the negro settlement, where there was a recent outbreak of the disease, has been raised. None of the affected have died, showing its mild type.

ST. TIMOTHY HOSPITAL.

The managers have acknowledged the receipt of $10,000 from J. Vaughan Merrick for the purpose of extinguishing the ground rent of the hospital, which amounts to about $8000; $2000 will go toward the endowment fund. The hospital has also received the sum of $5000 from John H. Dearnley for the purpose of endowing a free bed in memory of his daughter, Martha A. Dearnley. A gift of $50,000 has also been received from the estate of Percival Roberts, which will go toward defraying the cost of the addition to the hospital, now in the course of erection.

WILL OF DR. JOHN ASHHURST, JR.

The will was admitted to probate on July 24. To his widow, Sarah Wayne Ashhurst, is devised as many books from his library as she may wish. A codicil provides that the College of Physicians shall have the right to select 1500 volumes from his medical library. Future editions of his "Principles and Practice of Surgery" have been entrusted for editing, revision, etc., to the care of Dr. Richard H. Harte, assisted by Dr. William W. Ashhurst and Dr. Astley P. C. Ashhurst. A conservative estimate of the value of the estate has been placed at $190,000.

NEW YORK.

DR. C. C. HARVEY, Dundee, sailed for Europe, July 21.

DR. MARCEL HARTWIG has been elected president of the Buffalo Academy of Medicine.

DR. CLARKSON SCUYLER, of Plattsburg, has offered a yearly prize of $100, to be awarded for the best essay written by a graduate of the Albany Medical College. The subject for next year is "The Influence of the Discovery of the Relation of Bacteria to Disease on the Practice of Medicine Exclusive of Surgery." Essays should be sent to Dr. S. B. Ward, Albany, before March 1, 1901.

FAYERWEATHER BEQUESTS.

The decision of the Fayerweather will case was rendered on July 12, and the will declared valid. By its terms $210,000 is bequeathed to the Woman's Hospital; $50,000 each to St. Luke's and the Presbyterian hospitals, and $25,000 each to Mount Sinai and the New York Cancer hospitals, the Methodist Hospital, Brooklyn; the Manhattan Eye and Ear Hospital, the New York Eye and Ear Infirmary and the Montefiore Home for Chronic Invalids.

ALBANY MEDICAL COLLEGE.

The faculty of the college has announced these appointments: Arthur G. Root, professor of diseases of the nose and throat; George Blumer, adjunct professor in histology, pathology and bacteriology; Arthur Wells Elting, instructor of surgery and master of surgical clinics at the Albany hospital; Harry Judson Pines, lecturer in obstetrics; Edgar Roscoe Stillman, of Troy, instructor of physiology; Edgar Albert Vander Veer, instructor in surgery; James Wesley Wilsie, instructor in materia medica; Lansing Betts Winne, instructor in clinical medicine; Warren Harkness Everett, instructor in embryology. The clinical assistants this year will be: Harry Seymour Pearse, William Henry George, Michael Daniel Stevenson, Washington Irving Goeway, Robert Hill Tedford, Jr., Fred Newman Guyer.

New York City.

THE ANNOUNCEMENT two weeks ago that the New York School of Clinical Medicine was permanently closed, was evidently founded on a false report. The school is still open.

CORNELL MEDICAL COLLEGE.

The new building of this college is nearly complete. It has cost, including the site, more than $600,000, all of which has been furnished by Col. Oliver H. Payne, who has also created a large endowment fund.

INFANT MORTALITY.

More bodies of children were received at the Bellevue morgue on July 17 than on any day since its institution. At midnight on that date the bodies of 33 children of 5 years old and under had been received, 11 of which were sent from private houses and 22 from hospitals.

MARYLAND.

DR. ABRAHAM CLAUDE, Annapolis, recently celebrated his golden wedding anniversary.

DR. GUY STEELE has been appointed health officer for the city of Cambridge and Dorchester County.

THE LOCAL registrars of vital statistics in the counties, of whom there are several in each county, under the act of 1900, receive a fee of 20 cents for each full record and return. Payment is made only on certification by the state registrar that the certificates are in fact duly executed and returned.

Baltimore.

DR. T. C. GILCHRIST sailed for Paris, July 21.

DR. JOHN J. CALDWELL has been appointed editor of *The Medicus*.

DR. WILLIAM LEE HOWARD is cruising along the Atlantic Coast in his sloop yacht *Kelpie*. He will go as far east as Halifax.

PROF. R. DORSEY COALE has been elected dean of the University of Maryland School of Medicine, vice Dr. Charles W. Mitchell, resigned.

DR. WILLIAM HALSTED.

Dr. William S. Halsted, who has been elected to honorary fellowship in the Royal College of Surgeons of England, is a native of New York City, and is 48 years old. He took his A.B. at Yale in 1874, and M.D. at Columbia College, N. Y., in 1877. He served as demonstrator of anatomy in his alma mater, and assisted in Bellevue, Roosevelt, Presbyterian and other hospitals in New York. On the opening of the Johns Hopkins Hospital he began work in Professor Welch's laboratory, and in 1893 he was made chief surgeon of the hospital and professor of surgery in the University.

CALIFORNIA.

LANE MEDICAL LECTURES.

The fifth course of the Lane Medical Lectures, inaugurated in Cooper Medical College in 1896, will be given in 1900 by Sir Michael Foster, K.C.B., M.P., Professor of Physiology, University of Cambridge, England. These lectures will be given on

the days and hours, as follows: August 20, 11 a.m., Vesalius, his forerunners and followers; the beginning of modern physiology. August 20, 8 p.m., Harvey, and the circulation of the blood; the lacteals and lymphatics. August 21, 11 a.m., Borelli and the influence of the new physics. August 21, 8 p.m., Malpighi and the physiology of glands and tissues. August 22, 11 a.m., van Helmont and the rise of chemical physiology. August 22, 8 p.m., the physiology of Sylvius and his pupils; digestion in the Seventeenth Century. August 23, 11 a.m., the English School; the physiology of respiration in the Seventeenth Century. August 23, 8 p.m., Priestly and Lavoisier; the modern doctrines of respiration. August 24, 11 a.m., Réaumur and Spallanzani; the physiology of digestion in the Eighteenth Century. August 24, 8 p.m., Haller and the physiology of the nervous system.

MISSOURI.

DR. EDWIN E. HUNTER, St. Joseph, has been appointed assistant city physician.

THE *Medical Review* begins the new volume with a slight change in its title. Hereafter it is to be known as the *St. Louis Medical Review.*

SEVERAL ADDITIONS have been made to the faculty of the College of Physicians and Surgeons in Kansas City. Herman E. Pease will have the chair of gynecology; Howard Hill, surgical anatomy; A. M. Wilson, physiology; Joseph B. Connell, dermatology; George Boyd, bacteriology and pathology.

MICHIGAN.

DR. H. M. GALE, Bay City, has returned from Europe.

THE MICHIGAN State Medical Society, at its last meeting, appointed Dr. E. Amberg, Detroit, to represent it on the Committee on National Legislation of THE AMERICAN MEDICAL ASSOCIATION.

THE BOARDS of the four state insane asylums met in Traverse City, July 19. A committee was appointed to revise the asylum laws; and if deemed advisable, the revision will be introduced as a bill in the next legislature.

VERMONT.

THE MEDICAL board of St. Albans met July 18 for the election of officers. The result was as follows: president, J. N. Jeune; vice-president, Allan Davidson; secretary, C. P. Lunderville; executive committee, J. N. Jeune, C. C. Berkley, A. A. Skeels.

DR. GEORGE ANDERSON has resigned his position as house surgeon at the Mary Fletcher Hospital in Burlington, and has gone to Pittsford, where he will practice. Dr. C. A. Pease has been appointed to succeed him, and Dr. F. T. Jackson will succeed Dr. Pease.

OHIO.

THE WILL of Dr. Chas. Judkins, who died in Cincinnati, July 1, has been filed for probate. The estate is valued at $100,000, the use of which is left his wife her lifetime. At her death $40,00 will be used to establish an academy of medicine in Cincinnati, and the rest will be divided among the heirs.

IOWA.

DR. DAVID MCDILL, Burlington, has been appointed physician for the federal penitentiary of Kansas.

THE KEOKUK Medical College has added a department of pharmacy, that will be opened this fall.

CANADA.

MOSQUITO SPECIMENS.

A number of Canadian entomologists are busily engaged collecting mosquitoes, with a view to submitting reports to the Naturalists' Club. They are at present prosecuting their researches in Antigonish County, N. S., and one has already upward of eighty specimens captured in various parts of that district within the last two months. He states that there are already known to be fifty varieties, differing in appearances, habits and seasons for work. There the mosquito apparently thrives but malaria is unknown.

MARITIME MEDICAL ASSOCIATION.

(Concluding Report.)

The question of Dominion Registration was debated at the second day's proceedings of the Association. Dr. McNeil, of Prince Edward Island, a past-president of the Association, wrote asking that the meeting indorse the proposition unanimously. Speaking on the matter, Dr. Farrell, of Halifax, said that they had to look at the matter of inter-provincial registration as it stood. Dr. Roddick's bill in parliament had never yet seen the light in that assembly. Whether it would become law he could not say. The medical councils of the different provinces had never yet met in council on the matter. It would be easy for these councils to take up the matter, as it came legitimately under their control and they had funds for such purposes. Dr. Armstrong, Montreal, who was present at the meeting, said he understood from Dr. Roddick that he had thought it wiser to wait another year before pushing his bill. Dr. Farrell, seconded by Dr. S. Jenkins, of Charlottetown, then presented this resolution: "That this meeting desires to express its sense of obligation to Dr. Roddick for his unceasing efforts to obtain Dominion registration and to assure him of the continued support of The Maritime Medical Association." The following officers were elected: president, Dr. W. S. Muir, Truro, N. S.; vice-president for Nova Scotia, Dr. Thomas Trenaman, Halifax; vice-president for Prince Edward Island, Dr. Ross; vice-president for New Brunswick, Dr. Inches; Dr. G. M. Campbell, secretary; Dr. T. D. Walker, St. John, N. B., treasurer; local committee, Drs. Farrell, Wickwire, Curry, Kirkpatrick, Tobin and C. D. Murray, Halifax. Next place of meeting, Halifax.

Toronto.

A TORONTO physician has designed the latest development of the electromobile. It is a self-propelled invalid's chair, and has a capacity for a fifteen-mile run at the rate of four and one-half miles per hour.

CHANGES IN MEDICAL FACULTY, TORONTO UNIVERSITY.

The Senate of Toronto University has ruled that there shall be an examination at the end of the third year hereafter, in the medical course, and has also recommended the following changes, promotions and appointments on the staff: Dr. J. A. Amyot, to be associate professor in pathology and bacteriology, or professor of clinical pathology at his option; Dr. F. N. G. Starr, associate professor of clinical surgery and also demonstrator of anatomy; Dr. Walter McKeown, B.A., demonstrator of clinical surgery; Dr. Clarence L. Starr, demonstrator of clinical surgery instead of assistant demonstrator of anatomy. A. R. Gordon, M.B., demonstrator in clinical medicine instead of assistant demonstrator of anatomy; Dr. R. D. Rudolf, lecturer in medicine and clinical medicine, instead of assistant demonstrator of anatomy; Dr. K. C. McIlwraith, demonstrator of obstetrics, instead of assistant demonstrator of anatomy; Dr. W. P. Caven, associate demonstrator of clinical medicine; Dr. Alexander McPherson to be professor of medicine and of clinical medicine, in the place of the late James E. Graham; Dr. H. T. Machell, associate professor of obstetrics and pediatrics, his work to be confined to pediatrics; Dr. Graham Chambers, M.A., demonstrator of clinical medicine; Dr. G. R. McDonagh, professor of laryngology and rhinology; W. H. Ellis, M.A., M.B., professor of toxicology; Bertram Spencer, M.B. professor of medical jurisprudence; and Dr. W. H. Beemer, superintendent of the Mimico Asylum for the Insane, to be extra-mural professor of mental diseases.

JUDGMENT RE CONSUMPTION SANITARIUM SUIT.

This morning the magistrate rendered judgment in the case of Dr. Edward Playter, who is the proprietor of the consumption sanitarium at "Highfields," Moore Park, North Toronto. The charge against Dr. Playter, entered by the health officer of the township in which his institution was situated, was that of conducting "a noxious and offensive business." The magistrate has decided that the defendant is the sole and only person responsible for the establishing of the institution, without having obtained the consent of the municipality. He further decided under Section 72 of the public health act that the doctor was carrying on an offensive and

noxious business, his establishment in no way being a sanitarium or a hospital. What few patients had availed themselves of the advantages of this so-called sanitarium were in the habit of lying along the streets, expectorating on the footpaths and sidewalks, and also into a large excavation on the back of the premises, without in the latter case, any effort being put forth to disinfect the contents. To this sort of thing the neighbors righteously objected; and on June 15 the Doctor was formally notified by the township health officer to remove his establishment to other quarters. Failing this, suit was brought to compel him to desist in his attempt to carry on a consumption sanitarium. The magistrate imposed the following fines: "I find the accused guilty of the offence charged and fine him $200 and costs, $21.50. He was notified to desist June 15, but, according to his own evidence, he had a patient there on July 25. For this he is fined $5.00 per day for each day, 40 days, or $200 additional." When distress is levied, if there be not sufficient to satisfy it, the Doctor, unless appeal be taken, must spend fourteen days in jail at hard labor. At the conclusion of his judgment, the magistrate remarked, that, "because of the strenuous opposition of the public, it would be useless to impose a nominal fine." The effect of the judgment in this case, which has been watched by the medical men of the city with no little interest, will no doubt have the effect of deterring others who may be similarly disposed from establishing such institutions without due and proper authority.

Montreal.

THE EXHIBIT sent to the Paris Exhibition by McGill University, for which a gold medal has been awarded, was composed of a magnificent series of mounted photographs, showing the exteriors of the university buildings, as well as the interiors of the most important lecture-rooms, laboratories, etc.

ACCORDING to the mortality statistics, there was another very large death-rate in Montreal last week. The total deaths recorded reached 183. Infantile debility claimed 107; consumption and other chest diseases, 17; diphtheria, 3; scarlet-fever, 1; typhoid-fever, 3; measles, 1; whooping cough 3, and smallpox, 1.

WORK is progressing on the additions to the medical faculty buildings for McGill, and a few of the new class-rooms will be ready for use in October. The old lecture amphitheater and the department devoted to pathology have been demolished entirely, and upon the sites they once occupied the new buildings are being erected. These improvements will cost $60,000.

INFANT MORTALITY.

The causes of the extraordinarily high death-rate at present prevailing among Montreal's children is causing the members of the Hygiene Committee keen concern and it is felt that something must be done to prevent this heavy death-rate among the innocents during the summer months. Out of a population of barely 300,000 it is truly appalling that in one week 116 deaths should be reported among infants, to be supplemented the next week by 107. The city health officer, Dr. Laberge, considers that the main causes for the death of these infants are the ignorance of mothers as to how properly to feed and take care of them; also overcrowding, want of fresh air, and, finally noxious privy pits in the city. A recently compiled mortality table shows that in the poorer wards of the city the death-rate is much heavier than in the western wards. A determined onslaught is to be made upon the privy pits, a source of great danger to infant life. Of these, in 1891 the city possessed 8528, whereas now they are 5201 in number. Alderman Ames, the chairman of the Hygiene Committee, has made a special study of sanitary matters of the city, and writing about these pits says that not 5 per cent. of them conform to the provisions of the by-law, which requires that they be water-tight. In the study which he made of this particular question three years ago, he was able to show that the death-rate and the prevalence of contagious diseases followed proportionately the number of privies in various localities. He is now fathering a measure before the city council which shall permit no privy pit to exist after May 1, 1900, without special permission granted by the Medical Health Officer. In this way will Montreal endeavor to get to the bottom of this harassing question.

Correspondence.

True Origin of the Epidemic of Yellow Fever.

NEW ORLEANS, La., July 21, 1900.

To the Editor:—"True Origin of the Epidemic of 1897 (Yellow Fever)", is the title of a well-written and very interesting article, in which Dr. J. H. White, of the United States Marine-Hospital Service, shows to his thorough satisfaction that yellow fever was introduced into Ocean Springs, Miss., in 1897, by a man named Thomas Shannahan.

Dr. White says (report of U. S. M.-H. Service for 1898, page 536):

Thomas Shannahan came from Guatemala, where he spent a short time prior to sailing, at a hotel in Port Barrios, at which hotel yellow fever is said to have existed. He sailed from Port Barrios, on April 8, on the steamship *Breakwater* and arrived at quarantine at Port Eads on April 12, and the quarantine season not being at hand, he suffered neither detention nor disinfection of his effects. He arrived at Ocean Springs, Miss., on April 13, and was sick on arrival with chill and subesquent fever and great weakness. He went to his home, which is a hotel or boarding-house. In this house resided several small children who went to school in the village with the children of other families.

Dr. Walter Wyman, Surgeon-General U. S. Marine-Hospital Service, partly corrects this report in a subsequent statement, which reads as follows:

In April, 1897, an American citizen, temporarily sojourning in Central America, determined to return to the United States.

He was in San José, a small city on the Pacific Coast of Guatemala, one of those unsewered, insanitary Central American coast cities which are the breeding spots of yellow fever, where the disease prevails annually and is limited only by the amount of new material to feed on. He left in apparent good health, on or about April 6, and, partly on mule back and partly by rail, ascended the mountains and crossed over to the Atlantic Coast to Port Barrios, where he arrived April 7, and at once took a steamer for New Orleans.

From the latter port he immediately proceeded to his home in Ocean Springs, Mississippi, where, on April 13, he was seized with an attack of yellow fever so mild as to escape observation. In due course of time, by the latter part of August, there was a well-defined epidemic of yellow fever in Ocean Springs, and it had spread to other states, with results which must still be fresh in the minds of all here present, of shotgun quarantines, disturbance of business, interruption of passenger traffic, hardships imposed on travelers, and all the other unhappy concomitants of a yellow-fever epidemic.

The foregoing mortality, therefore, the interruption to traffic and travel, and the injury to the business of great commercial cities, almost incalculable in amount, during the last three years, can be traced to the conditions prevailing in the little town of San José ,on the Pacific Coast of Guatemala.—"Our Sanitary Obligations," *Morning News*, of Savannah, Ga., March 22, 1900.

It is truly remarkable, and almost incredible, that men of such standing and of such undoubted ability, should utter so lightly these terrible statements.

Quite recently—July 5, 1900—Dr. Wyman has made a still further correction, as follows:

. . . It should be noted, however, that one statement of this report (i. e., of Dr. White) is erroneous and was intended to be corrected before publication, viz., the statement that yellow fever existed at Port Barrios.

It was intended to state that yellow fever existed at San José, whence this party crossed the isthmus and took ship at Port Barrios.

Dr. C. P. Wilkinson, resident physician of the Mississippi River Quarantine Station refutes these charges in the report of the Louisiana State Board of Health for 1898-1899. After quoting the paragraph from Dr. White's report relative to Shannahan's return from Gautemala, as above set forth, Dr. Wilkinson says:

From the Shannahan hotel Surgeon White traces a case of what was diagnosed spinal meningitis by the attending physicians, April 22. From these two cases, Surgeon White attempts to trace connection with every other case of sickness in Ocean Springs. It is well to bear in mind that not one fact of these cases was in possession of Surgeon White, until some time in September of that year.

His house of cards will collapse if he can not trace any connection of Shannahan with yellow fever in Gautemala. A whole theory, a solution of a scientific problem, a guide to the conduct of a large commerce, and the protection of life and property is based on—"*said to have existed.*" Authority for the statement is not quoted.

. . . . . .

It is not possible that infection, existing at Port Barrios, could be carried away to Ocean Springs, and at the latter place spread, and at the former instantly die out. Nor is it possible that Shannahan only would carry away infection, for there were others departed from the same hotel at Port Barrios, who went to other places, and who did not convey infection. Further than this, reliable testimony of the conditions prevailing at Port Barrios, in April, 1897, could have been obtained by Surgeon White in any investigation having the whole truth as its object, and this testimony would have absolutely convinced any intelligent person that Shannahan's connection with yellow fever in Guatemala was disproved. The following specific letter furnishes valuable testimony to contradict Surgeon White's assertion:

"January 1, 1900.

"DR. C. P. WILKINSON, RESIDENT PHYSICIAN, MISSISSIPPI RIVER QUARANTINE STATION: *Dear Sir:*—On April 20, 1897, I visited Port Barrios, Guatemala, visiting the hotel at that small place. While I was not on any official mission, I did not neglect to avail myself of the opportunity of inquiring into the health status of the various ports in British and Spanish Honduras and Guatemala, which I visited at that time. The statement that yellow fever existed at the hotel in Port Barrios, about April 8, 1897, is untrue. To my knowledge there was none at the time of my visit, April 20, 1897; nor was there any rumor or report or suspicion of such disease at any time previously. At the time of my visit, I personally met Dr. Kilgore, the surgeon in charge of the railroad hospital at Port Barrios, who was in a position to know, and did know exactly the health condition of Port Barrios, who stated to me that the port and the vicinity were absolutely free from any infectious disease whatever. This statetment was corroborated by Dr. Odeneal, chief surgeon of the Guatemala Northern Railroad; by Dr. French, surgeon on the line, and other reputable persons in Port Barrios and Livingston. It is claimed by the residents of Port Barrios that there never has been any yellow fever at that place, which claim, after having given the subject some attention, I am convinced can be substantiated.

"JOHN N. THOMAS, M.D., Quarantine Inspector."

I have also a certificate from Dr. Kilgore that Thomas Shannahan was just prior to his departure from Port Barrios a section foreman of the railroad running into that place, and that Shannahan was a victim of paroxysms of malarial fever.

The report of Dr. Mark Finney, the resident medical inspector at Port Barrios and Livingston, for the Louisiana State Board of Health, beginning his duties on April 15, 1897, certify that no contagious diseases, or rumors, or suspicions of such existed in Port Barrios, or anywhere in that vicinity. The Marine Hospital records show, by reports from United States consuls in Guatemala, that the government of that country, in the early summer of 1897, forbade the entry into its ports of vessels from the yellow-fever-infected port of Panama, and used every endeavor successfully to prevent introduction of that disease into any of its ports. In the face of all this evidence it is past the bounds of credence to ask any one to believe that there was any yellow-fever infection in Guatemala for Shannahan to take away with him.

Further on in Surgeon White's report he says:

"Mrs. Gonzales, I understand, was frequently at the Shannahan house to see Cuban sympathizers stopping there."

This statement opens up a very interesting line of investigation. Was the Shannahan house infected by persons from Cuba? Who were these Cuban sympathizers? Whence did they come, and when, and how?

Early in 1897 it was difficult for persons to leave Cuba if there was any good reason for the Spanish authorities to believe they were sympathizers with the Cuban cause. It was possible for some to slip away clandestinely from the island and get on board vessels bound for the United States. This procedure involved a certain irregularity on the part of the master of that vessel, which irregularity it was hard for him to explain when coming before the authorities of the United States quarantine and custom-house. Evasion of this necessary explanation could be secured, however, if his living freight, their goods and chattels, could be as clandestinely debarked as they were embarked, and this evasion was easy of accomplishment along the Mississippi Sound coast, coming in under cover of darkness, to the east or the west of Ship Island. That this clandestine practice has been resortetd to at times, I learned in three instances: once the debarkation of passengers at the Rigolets, bound for New Orleans, once the debarkation of passengers near Pass Christian, and once on the Florida coast. My informants were masters of schooners trading between Havana and the Mississippi Sound, who stated they had done these things, and also informed me it was not so very unusual for others to do them.

I do not think it at all improbable that clandestine communication between Havana and Shannahan's house was established early in 1897, and this communication without any of the formalities of quarantine. The motives for this communication existed; it was easy of accomplishment; it had been done before; was it done in this instance, and did some other person than Shannahan bring infection to the Shannahan house?

Bearing on this subject, I present the following letter from Mr. J. M. Leveque, of New Orleans:

"NEW ORLEANS, LA., January 1, 1900.

"DR. C. P. WILKINSON: *Dear Sir:*—Early in 1897, as reporter for the New Orleans *Picayune*, I was detailed to gather such items as I could regarding the movements of Cuban sympathizers here and along the Mississippi Sound coast. It is within my knowledge that Ocean Springs, Miss., was their headquarters; and their usual meeting point a house, owned by Mrs. Gonzales, at that place. I also know that expeditions of a secret character came to and went from Ocean Springs, and I have it on the authority of parties in the heart of the movements that these expeditions communicated directly with Havana and other ports on the Island of Cuba. These expeditions, I know, were composed of quite a number of persons, who carried out and brought back many articles of contraband and personal effects, and, of course, with careful avoidance of either quarantine or custom-house. About the middle of March, 1897, certainly not later than near the close of that month, Mrs. Gonzales told me there was a person ill at her house in Ocean Springs with what she was positive was yellow fever. I asked her if she was not mistaken, that thus early in the season yellow fever was unheard of in this country? She said that she had become so familiar with the disease during her long residence in Cuba she could not possibly be mistaken. I gave the matter little thought at the time; the appearance of the disease so early in the season being so improbable; and long absence of the disease from our country to me entirely precluded any apprehensions of evil. Of course, Mrs. Gonzales remained silent for other reasons. Long afterward, when the disease spread and became publicly known, Mrs. Gonzales recalled to me that her diagnosis had been correct, and I am now positive that yellow fever was brought to Opean Springs, Miss., by the Cuban with their effects, operating from that point. "J. M. LEVEQUE."

It was not denied that the point for greatest distribution of yellow fever in Ocean Springs, in 1897, was the Shannahan hotel. I have been at some pains to gather specific information regarding the probable infection of that place. I present the testimony given to me by persons of the highest character, and I name them. I do not think it can be denied that the infection of Ocean Springs did not come from Guatemala through New Orleans, or that it did come from Cuba through evasions of the quarantine station at Ship Island.

C. P. WILKINSON, M.D., Resident Physician.

But the most remarkable part of the whole affair is that no one seems to have sought for the truth at the fountain-head, that is, from the man Shannahan himself.

I was struck with this serious and very remarkable omission and instructed Dr. Horton, medical inspector of the Louisiana State Board of Health, to find Shannahan and get his statement of the facts. This statement, in the form of an affidavit, is here appended. It speaks for itself.

NEW ORLEANS, July 7, 1900.

PARISH OF ORLEANS, STATE OF LOUISIANA, *ss.*

Before me, Felix J. Dreyfous, a Notary Public, in and for the Parish and State aforesaid, personally appeared Thomas B. Shannahan, who, upon being duly sworn, deposed and said: That he was born at Ocean Springs, Miss., in 1874; that he went to Guatemala late in the summer of 1895 and remained there continuously until April 1897, with the exception of one trip which he made to Belize, British Honduras, in 1895.

That during the time of his residence in Guatemala he was employed as a mechanic in the service of the Ferrocarril del Norte. (Railroad projected from Puerto Barrios to Guatemala City.)

That he was never at any time in San José or any other seaport on the Pacific Coast, having gone no further from the east coast than the town of Zacapa, about 135 miles from Puerto Barrios, between which point and Gualan, a station on the railroad some fifty miles east of Zacapa, affiant worked.

That during his entire residence in Guatemala he suffered more or less with malarial fever, for which he was treated at different times by Dr. Kilgore, at Puerto Barrios, and Dr. Odeneal, the railroad surgeon, at Zacapa.

That he never heard of any yellow fever at Zacapa, Gualan or Puerto Barrios or at any other point on the railroad.

That on the occasion of his return to the United States he left Zacapa in the morning and arrived at Puerto Barrios the same evening: that he did not stop at any hotel in Puerto Barrios, but slept at a house occupied by his brother.

That his brother was not then ill, and to the best of affiant's knowledge had not been ill at any previous time. That there were no other occupants in that house besides affiant's brother.

That affiant and his brother sailed the next morning for New Orleans; that on the voyage affiant was sea-sick, but not otherwise ill.

That the steamship arrived at the wharf in New Orleans after night; that affiant and his brother slept on board, and the next day took an evening train to Ocean Springs, arriving there the same night; that he had a chill the next day. Dr. Robinson, a physician from Edwardsville, Ill., temporarily sojourning at Ocean Springs, first prescribed for affiant; later Dr. Bragg, a local physician, attended him.

Affiant further deposes that he was not continuously ill, but would have a chill and fever lasting a few hours, after which he would get up and go about until the next chill, usually on the third or fourth day.

Further that he continued to have these intermittent attacks from time to time during the entire summer of 1897.

[Signed.] T. B. SHANNAHAN.

Sworn to and subscribed before me this 7th of July, 1900.

FELIX J. DREYFOUS, Notary Public.

It thus appears that this man had never been in San José nor at any place where there was yellow fever, prior to arriving at Ocean Springs, and the whole structure falls to the ground like the "House of Cards" that it is.

EDMOND SOUCHON, M.D.,
President Louisiana State Board of Health.

Death During Use of Schleich Solution.

OMAHA, NEB., July 22, 1900.

To the Editor:—Since Dr. Willy Meyer called the attention of the American profession to the Schleich solution in 1897, I have been a careful student of its use and have had opportunity for my studies in my work as anesthetist of the Presbyterian Hospital and while giving it, upon invitation, in the Presbyterian Hospital in Chicago for Dr. Etheridge, Dr. Stehman and Dr. Hamilton, in Mercy Hospital for Dr. Murphy, in the Dental College for Dr. Brophy, and in Cook County Hospital for Dr. Burton, and in my own city for many of our surgeons.

I have been deeply impressed with its qualities, its superiority and its comparative safety. I have never felt that it was a safe anesthetic, for we have none, nor can we ever have one. It becomes my duty to report a death from its use, and it is the first one of which I have known in America.

The patient was Miss H., a young woman of 23; fairly robust, well nourished, heart-sounds fairly clear and distinct, no valvular lesion; she was to be operated upon for recurrent appendicitis, having recently recovered from her second attack; upon beginning the anesthesia, I held the Stone mask—a metal mask, rubber tired, an opening on top of seven-eighths of an inch in diameter—two inches from her face, and was three minutes in getting the mask down upon her face; she took the solution kindly and in six minutes had corneal anesthesia, and, in two more, surgical anesthesia. She was then carried into the operating-room and made ready. After about three minutes of preparation, she was relaxed; the pupils were very small; the lower jaw was dropped. I announced to the surgeon that she was ready. She barely flinched when he made the incision, but more when he separated the muscles. I saw this and endeavored to make the anesthesia more profound by dropping the solution on more rapidly. The reflex due to the incision and separation of the muscles had not caused the pupils to widen *at all*, for I was watching them most carefully. It merely caused her to move a little. Her face was of good color; her pulse was good; the surgeon had removed the appendix, when the following sequence of events took place:

The pulse became weak; then irregular; then intermittent; then it ceased; the respiration, which had been regular and normal, became very rapid; this for six or eight respirations only; while the pulse was failing, before it had ceased, the pupils were still very small; instantly they dilated widely and death took place. With the first sign of trouble, I had removed the mask; the face was then pallid.

The usual measures for restoration: strychnia, rhythmic traction of the tongue, artificial respiration, etc., were carried out for sixty minutes, without eliciting a sign of life.

Death was due to paralysis of the heart center, followed by paralysis of the respiratory center.

I have now given the Schleich solution 441 times and this experience covers most of the major operations. The usual experience is that the patient goes quietly to sleep with no excitement whatever; nausea was present in the last fifty cases, during anesthesia, eight times; three of these had fairly severe nausea; five had nausea but once.

Only six vomited after recovery from the anesthetic. Serious conditions developed in thirteen cases of the 441. Two had great dread of the anesthesia from prior experience with chloroform; one had a mitral lesion; three had a markedly feeble heart; two were chronic alcholics; but three of the thirteen were those in whom one had not a right to expect trouble.

With this unfavorable experience, I still feel that the Schleich solution as an anesthetic is of greater value and of less danger than is either one of the others.

R. M. STONE, M.D.

Book Notices.

CANCER OF THE UTERUS, ITS PATHOLOGY, SYMPTOMATOLOGY, AND TREATMENT; ALSO THE PATHOLOGY OF DISEASES OF THE ENDOMETRIUM. By Thomas Stephen Cullen, M. B. (Toronto), Associate Professor of Gynecology in the Johns Hopkins University. With eleven Lithographic Plates and over three hundred colored and black illustrations in the text, by Max Brödel and Hermann Becker. New York: D. Appleton & Co. 1900.

This is a superb volume from the view-point of the maker of medical books, excellently, profusely, and always instructively illustrated. The artistic drawings of Brödel and Becker have been reproduced with uniform success. The illustrations of gross anatomy are from Kelly's "Operative Gynecology"; a small number of figures are taken from other publications from the gynecological clinic of the Johns Hopkins Hospital, the large majority being original. The figures showing the development and the structure of the various forms of carcinoma of the uterus are especially instructive and faithful reproductions. No less so are the illustrations of the numerous conditions and processes—including practically the whole range of uterine pathologic histology that may be confounded with carcinoma. The large fields, the insertion of drawings of many of the gross specimens from which the sections were made, and the clear and full explanations are of great help in getting a clear idea of the subjects presented. The volume contains 693 pages. There are 27 chapters and a short appendix.

It is largely an original work and represents a critical and telling study of the clinical and anatomical material from Dr. Kelly's service. The text is never overburdened with citations from the literature, which is utilized only to fill up gaps not clearly illustrated by original cases. It is not often that the author is forced to rely wholly on the work of others. At the same time he has carefully covered the literature in his reading so that he is always in direct touch with current fact and opinion. Cancerous growths of the uterus are divided into four groups: 1, squamous-celled carcinoma of the cervix; 2, adenocarcinoma of the cervix; 3, adenocarcinoma of the body; 4, squamous-celled carcinoma of the body (rare). This is a simple, yet sufficiently comprehensive classification; and the

reader is not confused at the very outset by a parade of the many varieties described by different authors.

The gross anatomy of the uterus and the histology of the uterine mucosa are carefully described. A clear knowledge of fundamental facts of this character is essential in order to understand the origin, the structure, and the extension of uterine carcinoma. The operation of scraping the uterus and the methods of examination of tissues for diagnostic purposes are detailed. This chapter contains many points of great value to the practical pathologist. The author's technique of making frozen sections makes it possible to reach a diagnosis in fifteen minutes or even less, so that in certain cases the radical operation may be made forthwith. One may well understand the author's thankfulness to his associates for their consideration in refraining from mutilating the specimen obtained by operation—a harmful custom in vogue at many clinics, often preventing the preservation of finer structures. The technique of examination of the uterus after removal is outlined fully.

During a period of less than six years 182 cases of carcinoma of the uterus came under observation; of these 128 were squamous-celled carcinoma of the cervix; 19 were adenocarcinomas of the cervix, and 35 adenocarcinomas of the body. Squamous carcinoma of the cervix is numerically the most important form, and 239 pages (Chapters iv-viii) are given to its consideration. From the study of the early stages of this form it is shown that it is due to an ingrowth and branching of the squamous epithelium of the part coincident with a branching outgrowth of stroma and epithelium in the form of finger-like processes. This stage is followed by more or less disintegration of the cervix. The extension to neighboring structures, the formation of lymphatic and other metastases, and the development of complicating lesions of inflammatory and obstructive nature are described. The many points of major as well as minor importance are made interestingly clear by the thorough study of individual cases accompanied with numerous figures.

The clinical aspects are then considered. It is shown that here, as well as in the other forms of uterine carcinoma, "the diagnostic symptoms at best are meager, and in the early stages give little or no clue to the real nature of the disease. Hence the value of curettage when there is the slightest uterine hemorrhage that can not be satisfactorily explained." The clinical and histological, differential diagnosis of squamous carcinoma of the cervix is fully considered. All the various conditions that may be mistaken for carcinoma are considered seriatim.

In the chapters on treatment all the measures that have been suggested and employed are not given, but only those that have been found most satisfactory at the Johns Hopkins Hospital. The development of the various steps in the operative technique—ureteral catheterization, removal of iliac glands, etc. —are sketched. To Ries is given the credit for recommending the systematic removal of the lymphatic glands, and Pawlik is given the credit of introducing ureteral catheterization in hysterectomy. Werder's operation "appears to be the most promising one, allowing as it does, such a wide removal of the vaginal mucosa with its underlying connective tissue." A wide field is predicted for this operation. The various steps in the operative procedures are clearly and fully illustrated. Not the least interesting part in the chapters on treatment is the open and unreserved statement of all the accidents and mistakes happening to the operators at the Johns Hopkins Hospital.

Chapters ix-xii deal with adenocarcinoma of the cervix. In this book adenoma does not even designate a benign tumor, and adenocarcinoma "indicates a glandular growth, which runs rampant, invading the tissue in all directions." All phases of this form of carcinoma are presented with great completeness. This is also true of adenocarcinoma of the body of the uterus (Chapters xii-xix). A valuable feature of these chapters is the careful descriptions and the illustrations of the uterine scrapings, from the appearances of which the diagnosis was made in many of the cases. Throughout the book the objective character of the statements and of the whole manner of presentation can not fail to impress the reader. In adenocarcinoma of the body, the question of lymphatic metastasis is of little practical importance, because it has been found that in operable cases lymphatic invasion has not had time to develop. The reason for the late development of metastasis is to be found probably in the large size of the tumor cells. The chapter (xv) on other processes associated with adenocarcinoma is full of valuable practical suggestions. And in Chapter xvii, on the differential diagnosis in adenocarcinoma of the body of the uterus, all the clinical and pathologic material of the hospital for the last seven years has been utilized, and every condition that may be confused with adenocarcinoma is dealt with. This chapter is very valuable. Operation for carcinoma of the body of the uterus gives brilliant results, provided the diagnosis is made early. Nearly every disease of the endometrium is marshalled before the reader in word and picture with a view to render the diagnosis of obscure cases of carcinoma more frequent.

Primary squamous-celled carcinoma of the body of the uterus is rare; only three cases are authentically described; no such case has come under Cullen's personal observation.

In Chapter xx an instance of a rare form of adenocarcinoma of the uterus is described. Chapter xxii contains a full summary of our knowledge of deciduoma malignum, based largely on the articles of Williams and Dorland. Chapter xxiii discusses pregnancy complicating carcinoma of the cervix; C. xxiv the clinical phenomena common to all forms of uterine carcinoma; and C. xxv the prognosis. Inasmuch as the cases studied date back only six or seven years, the question of the number of permanent cures is set aside. The general summary shows that in 123 cases of squamous-celled carcinoma 62 came too late for operation; of the 61 operative cases 13—20 per cent.—were well Jan. 1, 1900. Of 18 cases of adenocarcinoma of the cervix 6 came too late for operation and 2—16 per cent. —were alive on the above date. Of 35 cases of adenocarcinoma of the body 5 came too late, 20—66 per cent.—are now living. This shows, in the first place, the large percentage of patients that are deprived of the possible benefits of operation until it is too late, and secondly, that the prognosis is best in adenocarcinoma of the body. Dr. Cullen, we are glad to say, belongs to those who "are content to operate, provided there is the slightest possibility of saving the patient." In this he evidently reflects the spirit of his chief.

In Chapter xxvi, devoted to the etiology of carcinoma, Cullen considers the various theories in vogue in their application to carcinoma of the uterus. The conclusion is inevitable that "the injuries incidental to labor have a potent influence" in the development of squamous-celled carcinoma of the cervix. There is no evidence in the support of the theory of an embryonic origin of uterine cancer; the histologic pictures all go against Ribbert's theory and favor the view that carcinoma is primarily a disease of the epithelium. Chapter xxvii discusses briefly experimental inoculation of carcinoma and the accidental implantation of carcinoma into healthy tissue during vaginal hysterectomy. The evidence indicates that implantation may occur and that the chance of conveying carcinoma particles into healthy parts should be avoided by all means.

The book ends with an appendix containing J. Knowsley Thornton's plea for the early diagnosis of malignant disease of the uterus. It is the general practitioner who is first consulted, as a rule, and on him largely rests the responsibility of reaching a timely diagnosis. It is universally known that the number of cases of uterine carcinoma allowed to run along until too late for operation is appalling. Ways and means must be devised by which the dread disease may be detected at the earliest moment possible. It has been Dr. Cullen's aim to give the family physician a clear idea of the early signs of carcinoma, in order that he may always be on his guard, and may not treat too lightly any suspicious indications which may be present. That Cullen has achieved an unqualified success is absolutely certain. Even the skilled gynecologist and pathologist will derive much help and encouragement from this book. Written in a clear and attractive style, admirably arranged, and permeated throughout by a practical yet scientific spirit, we venture the opinion that few medical books make as interesting reading. The book is remarkably free from irrelevant material and from omissions. Throughout, there is the closest correlation between the clinical picture and

the pathologic process; the tendency is always toward the practical, but it is perspicuously shown from beginning to end that the best practical results are obtainable only by following strictly scientific methods. This we submit is practical in the highest degree and in the truest sense. The natural outcome of a clinical and pathologic organization that few hospitals can equal, Dr. Cullen's book is a model clinico-pathologic study which can not fail to create a renewed interest in, and closer study of, uterine carcinoma throughout wide circles.

Association News.

Is Your Address Correct?

A list of members of the AMERICAN MEDICAL ASSOCIATION will be published in an early number of THE JOURNAL. It is important that this list be correct, and we would, therefore, ask each member to examine the label on his wrapper and, if not correct, notify us immediately so that the name may be correctly printed in the list. Subscribers who are eligible for membership and desire to be enrolled are requested to make application at once so that their names also may appear in the published list.

American Medical Association.

The following are a few of the comments on the last meeting of the ASSOCIATION:

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

It can be said with good reason that the Atlantic City meeting of the American Medical Association, which was held from June 5 to 8, inclusive, was the most successful in the history of the organization, the attendance even exceeding that of the centennial meeting at Philadelphia.

The addresses before the general sessions were scholarly and timely, and the work of the various sections was in keeping with the advances of progressive medicine.

A fair sprinkling of Southern physicians was noticeable, and their contributions to the scientific program of the meeting were no less valuable than were their good humor and rare wit, indispensable adjuncts on the festal occasions.

We note with pleasure and gratification that the South has not been wholly overlooked in the disposition of the various offices, but we should gladly see this section honored by the selection of a Southerner for the presidency of the Association at some early time in the future. And also we doubt the wisdom of confining the places of meeting of the Association to the more Northern cities. It has been many years since a Southern city claimed the privilege of entertaining this talented body, but there certainly are several which are equal to the occasion, and in which the members of the Association would be royally welcomed with all the reputed hospitality of Dixie land.—*Memphis Medical Monthly*, July.

THE MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

. . . . The scope and magnitude of the work before the Association can best be understood when it is remembered that its program consisted of 478 papers, presented in 13 different sections, with a registration of 2200 physicians. To arrange in all its detail such an amount of scientific material implies much preparation and labor. Those having these important duties in control did their work wisely and well. With the broadening of the work of the Association the suggestion is made from official sources that the time has arrived for a more permanent and distinct organization of the various sections. This is evidence of a comprehensive and progressive spirit which is entitled to and presumably will receive the support of this great Association. The scientific work accomplished by the Association, collectively and in sections, was varied and extensive. It embraced papers and discussion on them by representative men in every department of medicine and surgery. Viewed from a scientific standpoint there was much for commendation and little to condemn. It is by such meetings as these that the valuable in human knowledge and experience grows and expands. In the aggregate it may not be large, but the newer truths it reveals will and must be abiding. But not alone on these lines was it advantageous. It affords the busy man, the tired worker, a pause and a moment for rest, from the accustomed "daily round, the common task," and to take observations from a new standpoint. Scientific truth and clinical experience, as such, is revealed to him in a changed and more comprehensive aspect, and in the homeward journey, whether it be to the new and expanding West, the South, the Lakes, or the East, he returns with a new zest for work, and enlarged capabilities in his undertakings. From the scientific standpoint it seems the American Medical Association is reaching out for better things. It appears that it is less tolerant in spirit to those whose feelings and convictions on ethical and other questions varied from their standard. Medical science is a unit, and those who accept this dogma will yet see eye to eye in matters, both scientific and secular, which interest the medical practitioners in this twentieth century. It is devoutly to be hoped that this great association will regard its work as scientific, and that the perturbing ethical questions be left to the wise discretion of associations sending delegates to it, to deal with as they may decide, with the single qualification that every member shall be held to strict accountability for conduct becoming a gentleman.—*New York Lancet*, July.

Deaths and Obituaries.

DENNIS L. SHEA, M.D., New York University, 1890, died July 23, in New York City.

JOHN S. DRAIN, M.D., New York University, 1884, died at his home in New York City, July 21.

OSWALD B. FINNEY, M.D., University of Pennsylvania, 1834, died at his home in Onancock, Va., July 23.

JOHN R. BOWEN, M.D., Paris, Ky., died July 16. He was a graduate of the Bellevue Hospital Medical College, in the class of 1878.

W. R. PEPPER, M. D., a graduate of the Jefferson Medical College, Philadelphia, died at his home in Christiansburg, Va., July 17, aged 87 years.

HENRY T. HEROLD, M.D., Bellevue, N. Y., 1887, aged 38 years, died July 25, while undergoing an operation for appendicitis, at his home in Newark, N. J.

THOMAS WELCH, M. D. died at his home near Annapolis, Md., July 16, aged 61 years. He was graduated from the medical department of the New York University in 1862.

JUSTUS LESSEY, M. D., for more than forty years a practicing physician of Philadelphia, died July 13, aged 80 years. He was a graduate of Penn Medical College, now extinct.

HENRY HALL CADWELL, M. D., Pittsfield, Mass., died July 16. He studied medicine at the University of Michigan, and was for a time on the staff of the Long Island City Hospital.

CHAS. A. PARKER, M. D., died very suddenly, of cardiac asthma, in Columbus, Ohio, July 19, aged 32 years. He was graduated from the Columbus Medical College in 1890. He was assistant physician at the penitentiary.

WM. E. AIKEN, M.D., died at his home in Winnsboro, S. C., July 19, aged 81 years. He was graduated from the medical department of the New York University in 1849. He then spent seven years in Europe, studying and traveling.

ELIAS S. PEABODY, M. D., aged 87 years, died at his home in Taylorville, Ill., July 19. He was born in Stonington, Conn., the son of a Revolutionary soldier, and the great grandson of Elizabeth Starr, the first white girl born in New England.

THOS. LOUIS BROWN, M.D., Cincinnati, Ohio, died July 23, of peritonitis. He was born in Manchester, England, in 1837, and came to this country in 1854. He was graduated from the Ohio Medical College in 1872 and had since practiced at Cincinnati.

J. M. RICHMOND, M. D., St. Joseph, Mo., died in Kansas City, Mo., July 16. He was born in South Carolina in 1837. After a course in medicine at the New York University, from which he was graduated in 1860, he spent a year studying in Paris, and then entered the Confederate Army as a surgeon. After the war he practiced medicine in Abbeville, S. C., and

Richmond, Va., before locating in St. Joseph in 1872. In 1886 he was president of the District Medical Society of Northwest Missouri; in 1895, of the Missouri Valley Medical Society, and in 1896, of the State Medical Society. At the time of his death he held the chair of obstetrics in Ensworth Medical College, St. Joseph.

DEATHS ABROAD.

THOMAS JONES, M.D., Manchester, England, died in Springfontein, South Africa, June 18, aged 52 years. His professional studies were commenced at the Northern Hospital, Liverpool, and continued at Guy's Hospital, London. He had been surgeon of the Manchester Royal Infirmary since 1872, and of the Children's Hospital since 1874. In 1880, he was appointed lecturer on practical surgery in Owens College, and in 1892, he accepted the professorship of systematic surgery. He was a frequent contributor to medical journals, his articles being of a highly practical character.

D. J. LEECH, M. D., died at his home in Manchester, England, July 6, aged 60 years. For twenty-one years he had been physician to the Manchester Royal Infirmary and professor of materia medica and therapeutics in Owens College, where he founded the museum in that department. He was a member of the British Medical Association, an ex-president of the Manchester Medical Society, and founder of the Manchester Therapeutical Society. He was for several years editor of the *Medical Chronicle*, and a frequent contributor to numerous other journals.

Miscellany.

A German Decree Against Preserved Meats.—According to the *Munich Allgemeine Zeitung*, July 19, an imperial decree against the importation of sausages and canned meats is soon to be issued. No decision, however, has been reached as to when other sections of the meat inspection law will take effect.

Correction.—In the New Instrument Department of July 21 there was a description of a sterilizer attributed to E. Diko, M.D. The name should have been E. Viko. In the eighth line from top of page 183 "a" and "b" should read "b" and "c," in the ninth line "a" should be "b," and in the eleventh line "b" should read "c."

Mercurol, Not Mercauro.—Through a blunder in the composing room, an error was made in our last issue, through which one advertiser "pushed" another's product. The error occurred on advertising page 11, the word "Mercauro" being substituted for "Mercurol." It would not be amiss, under the circumstances, to refer those interested to the third article on the "Relation of Pharmacy to the Medical Profession," in THE JOURNAL for May 5, p. 1115, first column, under the caption, "Confusion of Names."

An Elaborate Index.—THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for the half year ending last month appeared with what may fairly be regarded as a new departure in the matter of indices. Not only is there an unusually complete index of all that has appeared in the pages of the publication, but it also embraces the original communications which have appeared in all the medical journals in the United States and Canada; in other words, it is an index medicus of American medical literature. Such a compilation must necessarily have entailed an enormous amount of work, and the question has already arisen whether such an index is appreciated. The readers of THE JOURNAL are appealed to to decide whether or not the task is one worthy of being continued. For our own part we cannot doubt that such an index will be found of the greatest utility by those interested in medical research, though whether one in twenty—the proportion which would be accepted as satisfactory—of the readers will take the trouble to testify to that opinion is open to question.—*Medical Press and Circular*, London, July 18.

Climate and Pathology of the Tien-Tsin Region.—The *Semaine Méd.* of July 11 states that the French troops ordered to China are supplied with clothing for a tropical climate, as the rainy season, from June to October, is very hot. The temperature falls abruptly in October and the northeast winds with tempests of frozen dust render the winter climate very severe; consequently the troops are to be supplied in the fall with woolen clothing, underwear and socks, and will be allowed to buy fur jackets at their own expense. The drinking water, and even the fish in the rivers, are all contaminated. Pork is almost invariably infected. An alcohol is made from sorghum and extensively consumed, which is the more toxic the deeper the color, and sells for less than ten cents a quart. "Liquor of any kind is dangerous for the health during the summer heat." The French troops are to be supplied with pocket potassium permanganate filters which destroy many of the most injurious germs, but the use of tea is advised as a general measure. The valley of the Pei Ho is a hot-bed of malaria during the summer, and prophylactic measures should be imposed on all the troops. Heat and sun strokes are frequent in July and August, also congestions of the liver, but with the exception of malaria, diarrhea presents the most serious complications. The slightest tendency to diarrhea should be treated from the start, as epidemics of cholera are frequent in China, and any diarrhea may inaugurate one if the cholera germ happens to be in the intestines. Variola ravages the native population almost continuously, vaccination being ignored outside the districts where Europeans reside; consequently all the troops should be revaccinated.

Societies.

THE GERMAN OPHTHALMOLOGICAL SOCIETY will meet at Heidelberg, September 13, 14 and 15.

ROENTGEN SOCIETY OF THE UNITED STATES.—This Society will meet in New York City, Dec. 13 and 14, 1900. President, Heber Robarts, St. Louis, Mo.; secretary, J. R. Jicinsky, Cedar Rapids, Ia.

MASSAC COUNTY (ILL.) MEDICAL ASSOCIATION.—This Association met in Metropolis City, July 12. The following officers, all of that city, were elected: president, J. A. Orr; vice-president, J. A. Helm; secretary, C. E. Trovillion; treasurer, A. C. Ragsdale.

WYOMING COUNTY (N. Y.) MEDICAL ASSOCIATION.—This Association met in Warsaw, July 10. The officers for the ensuing year were elected, as follows: president, C. R. Seeley, Attica; vice-president, Mary Green, Castile; secretary and treasurer, Gifford Truesdell, Warsaw.

NORTHERN TRI-STATE MEDICAL ASSOCIATION.—This Association met in Montpelier, Ohio, July 17. The following officers were elected: president, J. A. Weitz, Detroit, Mich.; vice-president, L. E. Maire, Detroit; secretary, H. D. Wood, Angola, Ind.; treasurer, T. F. Wood, Angola.

SCOTT COUNTY (IOWA) MEDICAL ASSOCIATION.—At the annual meeting of this Association, held in Davenport, July 18, the following officers, all physicians of that city, were elected: president, C. M. Robertson; vice-president, John H. Kulp; secretary, Karl Volmer; treasurer, Chas. Preston.

SOUTHWESTERN MINNESOTA MEDICAL SOCIETY.—This Society met in Luverne, for the semi-annual meeting, July 12. The following officers were elected for the ensuing year: president, Conrad DeLong, Edgerton; vice-president, C. O. Wright, Luverne; secretary and treasurer, H. D. Jenckes, Pipestone. The next meeting will be held in Sibley.

FRANKLIN COUNTY (PA.) MEDICAL SOCIETY.—This Society met in Chambersburg, July 17, and the following officers were placed in nomination for 1901: president, Joseph Snively, Shady Grove; vice-presidents, W. A. Thrush, Orrstown, and A. D. Dalbey, McConnelsburg; recording secretary, J. J. Coffman, Scotland; corresponding secretary, H. C. Devilbiss, Chambersburg; censor, A. H. Strickler, Waynesboro.

CUMBERLAND COUNTY (N. J.) DISTRICT MEDICAL SOCIETY.—The July meeting of this Society was held at Millville, July 10, 1900, Vice-President Miller in the chair. A paper on "Observations in Obstetrics," including a report on the progress of obstetrics, prepared by Dr. T. G. Davis, Bridgeton, was read by Dr. Ellsmore Stites, of Bridgeton, and discussed. A report on the progress of therapeutics was presented by Dr. L. L. Hand, Leesburg. Dr. Jos. Tomlinson, Bridgeton, reported a case of cancer of the stomach and exhibited the specimen. Other cases

were also reported. The Society adjourned to meet at Millville the second Tuesday in October.

GERMAN CONGRESS OF NATURALISTS AND PHYSICIANS.—The seventy-second annual congress will be held at Aachen, from September 17 to 21. Verworn and Nissl will describe the present status of the "Neuron Theory," Chiari, "Pathologic Anatomy in Connection with External Medicine," and Naunyn, "Internal Medicine." An exhibit of preparations and appliances is also announced. Three hundred communications have been already received.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.—This Association will hold its thirteenth annual meeting in Louisville, Ky., Sept. 18, 19, and 20, 1900, under the presidency of Dr. Rufus Bartlett Hall, of Cincinnati. The following titles of papers have already been received: President's address, R. B. Hall; ovarian fibroma—case with microscopical report—L. H. Laidley, St. Louis; cholelithiasis—with report of cases—H. E. Hayd, Buffalo; appendicitis during pregnancy, Charles G. Cumston, Boston; diagnosis of ectopic pregnancy before rupture, based on ten cases, J. F. Baldwin, Columbus; three cases of extrauterine pregnancy, with specimens, W. B. Dorsett, St. Louis; the private hospital, Joseph Price, Philadelphia; extirpation of the rectum and sigmoid per vaginam, John B. Murphy, Chicago; the hymen—of what significance is its presence or absence in determining virginity? John Milton Duff, Pittsburg; a satisfactory method for suspension of the uterus, Robert T. Morris, New York; some points regarding surgery of the gall-bladder, A. Vander Veer, Albany; surgery of the liver and bile-ducts, W. G. Macdonald, Albany; observations respecting malignant disease of pelvic organs, Augustus P. Clarke, Cambridge; bilateral celiotomy and shortening of the uterus, A. Goldspohn, Chicago; round ligament ventrosuspension of the uterus, D. Tod Gilliam, Columbus.

Third District Branch of the New York State Medical Association.

Binghamton, N. Y., June 21, 1900.

President J. M. Farrington, Binghamton, in the chair.

BROTHERHOOD OF THE MEDICAL PROFESSION.

DR. J. M. FARRINGTON, Binghamton, delivered the annual address, taking the above as his subject.

In the early years of one's medical career one particularly feels the need of the beneficent influence of a true medical brotherhood. As far as can be conscientiously done the mantle of charity should be thrown over the faults of professional brethren. After long years of patient and persistent obedience to the Code of Ethics he had learned how good and pleasant it is for men to dwell together in unity. He urged with the greatest earnestness, a firmer brotherhood among physicians, showing this not only by helping brethren when avaricious people desire to rob them of their just remuneration but by sympathy and friendly administrations in time of trouble and affliction. He felt confident that each one would work out for himself the most practical method of promoting this feeling of brotherhood.

INDIGESTION AND BILIOUSNESS.

DR. J. H. MARTIN, Binghamton, in this paper, said that in the digestion of albumins the process should begin in the mouth with mastication. When the resulting process, albuminose, reaches the duodenum, it is transformed into peptone. Fatty substances are not acted upon in the mouth except that the fatty envelope is broken up. Good teeth, a healthy stomach, plenty of hydrochloric acid and pepsin are requisite for proper digestion of albuminoids. Sad intelligence, fright, marked emotions, all interfere seriously with gastric digestion. Nervous disturbance sometimes causes a too rapid passage of the food into the intestine, with resulting diarrhea and the passage of undigested food from the bowel. Where the patient suffers from epigastric discomfort, and yet rises from the table with the appetite unsatisfied, the underlying condition is usually an excess of hydrochloric acid. In treating indigestion, the first thing is to determine whether the albuminoids or the hydrocarbons are at fault. In one case of exceptionally feeble gastric digestion under the author's observation, the patient was kept on a diet of boiled rice for five years, with the result that normal digestion was restored. This was, of course, an extreme case and ordinarily it is not necessary to persevere so long with such a restricted diet. There is a decided excess of indican often in the urine where much fermentation is going on in the intestine. Such an excess of indican often indicates not only intestinal fermentation, but carcinoma of the stomach. For ordinary gastric flatulence he had never found anything act more satisfactorily than a mixture containing resorcin, peppermint water and simple elixir. Biliousness was defined as a form of indigestion occurring in persons who eat meat very freely, and whose livers have been overworked. If, for some reason, the liver is unable to break up the nitrogenous portion of the food into the soluble constituent of the urine—urea—there is formed uric acid, or urates. With this excess of uric acid and urates come the numerous symptoms of lithemia and functional nervous disorders. In the so-called cases of "torpid liver" there is, in addition to coated tongue, a bitter taste in the mouth, yellowish conjunctiva, and other familiar symptoms. The patient is apt to complain of feeling intensely drowsy after eating. The indications are to clear out the alimentary canal and administer a mercurial or that much-despised but very excellent cholagogue, sulphate of soda. The diet should be, of course, suitably restricted.

DR. FREDERICK HOLME WIGGIN, New York, said he had noticed for some time that in cases of chronic intestinal obstruction from any cause there was very apt to be a glazed and swollen tongue. He supposed it was produced by the depraved state of the blood resulting in a condition allied to scurvy. He had recently had a case of benign tumor of the cecum in which there had been in addition, swollen gums, and ecchymotic spots on the skin. He had removed the cecum and tumor, and afterward the occurrence of hemorrhages from the vagina had still further emphasized the depraved and scurvy-like condition.

DR. MARVIN said that before he had paid so much attention to disturbance of the digestive organs he recalled the case of an old lady whose tongue had presented this peculiar glazed condition. Without really knowing why, he had given her the old tincture of iron, and it had acted most satisfactorily. It was ascertained subsequently that she was suffering from carcinoma of the stomach, and then it had occurred to him that the explanation of the beneficial action was to be found in the absence of hydrochloric acid in the stomach and the filling of this deficiency by the hydrochloric acid in the tincture of the chlorid of iron.

CEREBRAL SYPHILIS.

DR. L. P. BLAIR, McDonough, said that cerebral syphilis made its appearance in the secondary and tertiary stages of the disease, and at a period of from one to twenty years from the time of the original infection. In one case in his practice the cerebral symptoms had developed promptly after the healing of old varicose ulcers of the leg. The prodromal symptoms of severe and localized headache, worse at night, with pain increased on pressure; insomnia without well-defined cause; sensations of numbness in the extremities; great irritability of temper, all point to this condition, but the diagnosis of cerebral syphilis is often extremely difficult, and often is made only by the good results from antisyphilitic treatment. Extreme tenderness over the dorso-lumbar spine never had been found absent in these cases of severe cerebral disease. While all admit that mercury and potassium iodid are the only remedies which can be relied upon, their administration is often rendered very difficult by the intolerance of the stomach, especially to iodids. The latter are given ordinarily by the mouth, but he has recently administered them in nutrient enemata to a person who could not swallow, and with the best results. The patient at the time was thought to be moribund; consciousness was lost; the limbs were in a state of tonic contraction, and the temperature was subnormal. Thirty grains of potassium iodid were given in a pint of beef peptonoids by the rectum every three hours. He was requested to see the man again three days later, and, to his surprise, found him conscious and greatly improved in every way. He admitted having contracted syphilis about ten years previously, and having had treatment for about one year. The iodids were in-

creased, and were given by the rectum most of the time until he fully recovered, about four months afterward. An attempt was made to give the iodids by the mouth, but this caused so much gastric disturbance that the administration per rectum was resumed.

DR. ELIAS LESTER, Seneca Falls, said that where there was a distinct history of syphilis the treatment outlined in the paper was, of course, eminently proper, but there were not infrequently cases in which no such history could be obtained, and the medical attendant learns of the true nature of the case only after death of the patient. A case was mentioned in which a well-known and respectable business man had suddenly lost consciousness in the street. He recovered promptly, but had another attack shortly afterward, diagnosed as cerebral apoplexy and hemiplegia. After his death the wife brought letters from a post surgeon in the army who had treated the man for syphilis years before, and urged the man to keep up his treatment. In the case just narrated there had not been the slightest suspicion of syphilis. His favorite treatment was the use of potassium iodid and injections of a mercurial cerate rather than the ordinary blue ointment.

DR. F. W. HIGGINS, Cortland, said that he had tried antisyphilitic treatment in cases which he had supposed to be syphilitic lesions of the central nervous system, but without any success. After further study of the subject he had come to the conclusion that if the tertiary lesion is in the nerve substance proper, this treatment is of little value; but if there is pressure on the nerve trunes or centers, prompt relief is afforded by such medication. He did not know that this statement would be borne out by others, but it had been his experience. He believed the antisyphilitic treatment should be pushed when once begun, and that the iodid was of more importance than the mercury. It was not well to lay too much stress on the results of such treatment, as proving the syphilitic nature of a case. He had learned that where there was a hemorrhage there was apt to be an increased temperature. When there was sudden loss of consciousness and the temperature was not increased after a day or two, he would be suspicious of the presence of an embolus, or of some such lesion as had been indicated in the paper. If one could distinguish between a lesion in the brain and one pressing on the brain it would greatly influence both our prognosis and treatment.

DR. WILLIAMS, Green, said that three or four years ago he presented a paper to the Chenango County Medical Association on "Subnormal Temperature in Disease." Mention was made of a patient who presented alarming symptoms, though thoroughly saturated with iodid. There was a history of continuous subnormal temperature. He had been under the author's care from the beginning. With the increase of pain the temperature was decidedly lower, often as much as four or five degrees below normal. In another case there was a history not only of syphilis, but of traumatism to the cervical ganglion. In this case, the exacerbations and remissions of pain were about twelve hours apart. During the height of the pain, which was excruciating, the temperature would drop to 95 F., and during the remission of pain the temperature would rise to within one or two degrees of normal. In the first case, after thorough saturation with iodid, this was abandoned, and the patient was given one grain of calomel every hour. Improvement followed immediately, and had been steadily progressive. He could not recall a single case of secondary syphilis of the brain in which there had not been a persistently subnormal temperature. This might prove a diagnostic aid in obscure cases.

DR. E. D. FERGUSON, Troy, said that about a dozen years ago Dr. Savage, of London, had told him, in the course of conversation, that he had never seen a gumma of the brain. Whether or not his experience has been exceptional he could not say, but he felt satisfied that it was not uncommon to diagnose gumma of the brain when some other lesion was present. Again, it should be remembered that potassium iodid undoubtedly has a favorable influence on other pathologic lesions of the body than those associated with constitutional syphilis. In the early stages of atheroma, for example, benefit was often noted from the administration of potassium iodid.

DR. W. A. WHITE, of the Binghamton State Hospital, did not think there was anything in the immediate symptomatology which would indicate actual destructive lesion of the nerve elements. The prognosis should always be tentative on that account. For instance, a person with obliterating endarteritis might have a slight hemiplegia, and yet instead of complete recovery, more or less permanent weakness might result. Secondary softening was another sequel which should be borne in mind when considering the prognosis. Probably 80 per cent. of paretics give a probable or an absolute history of syphilis. Those who develop general paralysis are apt to be persons having mental proclivities which lead them to such excesses in life as especially expose them to syphilis. All cases of paresis present elevation of temperature at some stage. This is particularly true of the convulsive crisis and the apoplectiform or hemiplegic attacks. If paresis were a syphilitic disease, this subnormal temperature would be of special interest in connection with the remarks already made. So eminent an authority as Dr. M. Allen Starr stated that gumma of the brain was a very common condition; probably 25 per cent. of all cerebral tumors were gummata. Whether or not they were gummata in the sense referred to by Dr. Ferguson probably depended largely on the definition of a gumma.

REORGANIZATION OF THE NEW YORK STATE MEDICAL ASSOCIATION.

DR. FREDERICK HOLME WIGGIN, New York, Chairman of the Committee on Reorganization, said it must be evident to those who were in touch with the medical profession, that there was a sad lack of proper organization. His attention had been called to this matter most pointedly in connection with efforts to remedy the dispensary abuse. Several years ago, at a dinner of the Society of Alumni of Bellevue Hospital, one of the chief officials of New York City had made a statement that, in his opinion, physicians had no influence. If this opinion were correct, it was most significant, and required very thoughtful consideration. The public generally exacts a great deal from physicians, and yet it has a very low estimate of the medical profession.

In looking for the remedy for this state of affairs, it seemed necessary that the profession should organize into a compact body, which would serve the public faithfully, and, at the same time protect physicians against unjust persecution. In the first place, it was necessary to have organization. This organization should begin in the county, and from this pass to the state, and to the national association. The present mode of becoming a member of the New York State Medical Association seemed to be defective, and under the control of a few. The underlying principle of reorganization was home rule. It was proposed that wherever there were ten members of the New York State Medical Association in any county, they should form a subordinate county association. Membership in this county association should carry with it membership in the state association, and eligibility to membership in the national organization—the AMERICAN MEDICAL ASSOCIATION. In counties not having such a county association, those desiring to become members of the state association should apply to the District Branch Association. Already the New York, Kings, Erie, Genessee and Wyoming county societies had become subordinate county associations of the State Association, so that instead of having a membership of 600, there is now a membership of about 1400 in the state association, with every indication that this number will soon be increased to 2000. The branch associations elect their own officers, and the presidents of these branch associations are members of the council of the state association.

Another feature of this scheme of reorganization is the publication of a medical directory for its members, as only by such means can the publication be properly controlled and improper advertisements kept out. Already the work done in this direction on the medical directory has borne good fruit, for it had been the entering wedge by which THE JOURNAL had been persuaded to clean up its advertising columns and exclude $6000 worth of objectionable advertising. To show their appreciation of this concession, the New York physicians had added more than two hundred members to the AMERICAN MEDICAL ASSOCIATION.

Another important feature is a means of protecting members against unjust malpractice suits. It is almost certain that such organized protection will be a most potent and salutary means of preventing the very common speculative suits for malpractice. In the future, if it should seem wise, a small death benefit might be paid to the members.

DR. E. D. FERGUSON said the very fact that the New York State Medical Association was now a chartered body was a most significant one. The association was now a creature of the legislature of the state of New York so far as its legal rights and responsibilities are concerned. Those making application, and accepted as members prior to July 1 are charter members of the state association. The same was true of all who are now members of the association, and who pay before that date.

The AMERICAN MEDICAL ASSOCIATION is the pivotal point of organization of the medical profession in this country, and to become a member of that organization should be the prime object of all physicians in this country. It is now fast becoming so, although at one time there had been a disposition to sneer at the Association. The theological rule of once a member, always a member, did not apply to the AMERICAN MEDICAL ASSOCIATION. One might become a permanent member so far as its scientific proceedings were concerned, by continuing in the membership of one of the subordinate affiliated bodies. The time had come to insist upon this. A fee of $5 not only pays for membership in the national organization, but secures for one year probably the best weekly medical journal published anywhere.

ALCOHOL IN THERAPEUTICS.

DR. H. D. DIDAMA, Syracuse, quoted Holt as saying that alcoholic stimulants are no doubt greatly abused in the hands of many practitioners. but that they are well tolerated by many children, even young infants, and that for a child of four years one ounce of whisky was not too much to begin with. Osler says that some of the effects of alcohol are irritability of temper, impaired judgment, enfeebled will, catarrh of the stomach, disease of the liver and kidneys, yet he adds that "alcohol may be given when the pulse flags in delirium tremens, and, that in moderation, wine, beer, and spirits may be taken throughout a long life without impairing the general health or causing disease of any organ." The unanimous testimony of athletes is that alcohol is harmful, and it is already ancient history that Arctic explorers withhold all alcohol from their companies, and that General Kitchener cut off the usual ration of grog from his men though they were marching over the hot sands of Africa and fighting bravely with the enemy. Brunton expresses the opinion that alcohol and strychnin are antagonistic, and yet they are often given together. Victor Horsley, in a lecture delivered April 27, 1900, reported certain experiments which demonstrated that the effect of alcohol on the brain is first an apparent quickening of the cerebral act, lasting for a few minutes, and that for a period of three or four hours this cerebral activity is diminished. The number of observers who are of the opinion that alcohol is an anesthetic rather than a depressant is rapidly increasing.

DR. F. H. WIGGIN said that, without having any bias on the subject, he had found that year after year he used less alcohol. He had found that hot peptonized milk would stimulate patients after abdominal operations much better than alcohol in any form.

DR. E. D. FERGUSON said that all had been interested in the experiments of Professor Atwater regarding the possible utilization of alcohol as a food. Probably most of us would not rely upon it as a food so much as for something else.

DR. J. H. MARTIN, Binghamton, said that early in his practice he had made use of alcohol in certain classes of cases in which he had been taught that it was useful, but not having obtained the desired effects, had discarded it. In the last ten had been as successful as before. There were a host of other years he had not used it at all as a cardiac stimulant, and he and better cardiac stimulants.

DR. HENRY C. HENDRICK, McGrawville, said that he had found glycerin a much better preservative of remedies than alcohol.

DR. J. M. FARRINGTON here called attention to the fact that at the present time there were on the market extracts made with acetic acid instead of alcohol.

DR. FRANK D. REESE, Cortland, thanked Dr. Didama for his paper, and added that of recent years he had had better success without than with alcohol.

DR. R. S. HARNDEN, Waverly, said that about twenty years ago he had been asked to sign a pledge not to use alcohol in his practice, but he had at that time declined, as he felt that he could not practice medicine successfully without alcohol. At one time he had been a heroic user of alcohol as a remedy for diphtheria, but to-day he secured better results without alcohol in any form. He used antitoxin, of course.

DR. E. D. FERGUSON thought many other drugs besides alcohol had done harm, and great harm. There could be no doubt that alcohol was often prescribed when it was not indicated; nevertheless it was a remedy which had a definite and useful action, though this was hard to define. He was in hearty sympathy with anything which would limit the abuse of alcohol, but he did not think its improper use would be abolished by asserting it had no place as a drug.

DR. W. A. WHITE, Binghamton, said he was fully convinced that alcohol had a value, though he was not so enthusiastic about it as at one time. He could recall cases where he was convinced he had saved life by its use. One of these cases was that of an old alcoholic who was on the verge of delirium tremens after an injury, and in whom the attack was aborted and his life apparently saved by the use of alcohol. In justice to Professor Atwater he would say that he defines food as any substance which nourishes the body by supplying the waste which takes place in its tissues, or any substance which supplies energy. In this second class he places alcohol. It certainly was capable of doing this, because it was oxidized in the system, and was not excreted as alcohol. Alcohol, like most all drugs capable of good, was capable of evil in equal proportion. There was perhaps no other drug in regard to which so much idiosyncrasy was shown. In the last number of the *American Journal of Psychology* were detailed some interesting experiments bearing on the effect of alcohol on the mental state. These experiments show that for about half an hour after its moderate administration, the mental working force of the individual is increased. It was not claimed that this effect was more than temporary. He believed the only way to determine the actual status of alcohol as a remedy was by careful experimentation in the laboratory rather than by making sweeping statements as to its detrimental influence.

DR. J. M. FARRINGTON said that he had given alcohol very freely in the early years of his practice, because he had been taught to do so, but personal observations had made him lose confidence in its value.

EXOPHTHALMIC GOITER.

DR. F. W. HIGGINS, Cortland, read this paper, which will be published in a future edition of THE JOURNAL.

ABUSE OF THE OBSTETRIC FORCEPS.

DR. W. L. AYER, Owego, said that the obstetric forceps might be life-destroying as well as life-saving. His observation had been that the less the experience of the practitioner, the more frequently did he make use of instruments in obstetrics. The strongest argument for their too frequent use comes from the gynecologists. He protested against using the obstetric forceps regardless of the factors of delay, or as a mere convenience to the medical attendant. It should be made a rule, whenever possible, not to employ the forceps without calling counsel. Statistics show that the forceps are used more frequently in this country and England than on the Continent. This is dependent quite probably on racial peculiarities and on different conditions under which patients are brought to the hospital in the different countries. According to recent statistics it appeared that they were used about once in fifteen cases, and this he considered too large a proportion—a revulsion from the days when they were used too seldom.

DR. F. W. HIGGINS said that it was not the use, but the abuse of the forceps which should be condemned. He had been recently called to see a case in which forceps had been applied to a face presentation, and the slipping of the forceps

had produced an extensive laceration of the vagina. If the true presentation was recognized, and the operation done under proper precautions, he was a thorough believer in the use of the forceps.

DR. R. S. HARNDEN remarked that to-day he did not use forceps once where thirty years ago he used them a dozen times. Experience had taught him that nature was the best accoucheur, and the nearer we follow her work the better for the patient. Occasionally their application would save the child, it is true, but he would agree with the author of the paper, that the extensive use of the forceps was not to be recommended.

DR. STYLES, Owego, said that the older one grows the less frequently does he employ obstetric instruments, and then to save time and suffering alone. The physician should be held accountable for the use of the forceps. Too many young men like the *éclat* of operative cases, but as their hair becomes white, they use instruments much less. In the large majority of cases of injury from the use of forceps, it is the result of ignorance or carelessness.

DR. FARNHAM, Binghamton, referred to the collective investigation made by a colleague from all classes of medical practitioners with regard to the use of forceps. One of the replies received was from a man who said, "Give me plenty of lard and plenty of time, and I will not have much use for obstetric forceps." A reasonable time should always be allowed to elapse before resorting to their use, and such conservatism, he thought, would be better for both mother and child.

DR. E. D. FERGUSON said that he could not see how aseptic forceps introduced into the aseptic parturient canal through an aseptic vulva with reasonable care could do the woman any harm. These instruments were often used when they were not indicated, and they were often blamed for results dependent entirely upon other conditions. A woman suffering agony from labor prolonged by tardy extension should be very thankful to the physician who cuts short her suffering by the aseptic and skilful application of the forceps.

DR. CHITTENDEN said that he believed, with Dr. Ferguson, in cleanliness and in removing the forceps before the delivery of the head. He had practiced many years before he had owned a pair of forceps, yet the labors had terminated satisfactorily.

ELECTION OF OFFICERS.

DR. T. A. WALES, of Elmira, was elected president, and DR. CHAUNCY P. BIGGS, of Ithaca, secretary, for the ensuing year.

Chicago Surgical Society.

June 1, 1900.

SURGICAL EXCLUSION OF INTESTINE.

DR. CARL BECK said: "I will not take up much time, but bring the question before the society in order to elicit some discussion on a subject which is of great importance in intestinal surgery. Historically it has developed about like this: In 1892 Salzer recommended exclusion of a portion of the bowel for incurable tumors or incurable inflammatory conditions. He did not perform the operation himself, but shortly afterward one of Billroth's assistants performed an operation of that kind. Long before, however, the same question had been brought up by the physiologists, who had selected a portion of the bowel, excluded and closed it from both sides, to examine the physiologic effect of the discharge. Also two Viennese physiologists made this experiment first and examined the physiologic functions of different portions of the intestine. From that time until the present there are, according to the latest paper published, twenty-four cases of surgical *total exclusion* of the bowels. What is total exclusion of the bowel? We distinguish partial and total exclusion. Partial exclusion is, for instance, exclusion by gastroenterostomy or gastroanastomosis. A portion of a loop of the bowel is excluded, but communicates with the general intestine. If we close up the two ends entirely and leave the excluded portion in the abdominal cavity or make it communicate with the outside by a fistula, we have a total exclusion. This experiment has been tried on animals and men. In animals it has been found that when the intestine was normal a piece of the bowel could be excluded without any bad consequences. You have read about the experiments of Hermann, who left portions of the side-tracked bowel inside the abdominal cavity, which remained there and became a cyst, the fluid doing no harm. In man it is different; this experiment is entirely impossible in man, as there are always microbes in the excluded portion, and it is invariably necessary to make a communication of the excluded portions with the outside.

"The indications for this operation are, first incurable fistula; intestinal fistula which can not be cured by any other method can be cured by total exclusion of the bowel, by closing up the bowel on both sides of the fistula and bringing the ends of the severed portions, distal and proximal, together. I have operated so far in four cases, in one with a fistula exclusion, only a few days ago. The reasons for these operations were different. The case I illustrate is one I have already demonstrated before the Chicago Medical Society, an incurable fistula. Eight laparotomies were necessary to cure the fistula. First, operation was for appendicitis. There was a large abscess cavity. I tried by different methods to close a fecal opening, which I finally found away behind the colon ascendens. The seventh operation, side-tracking of the bowel, was done in this way: The cecum was severed and the ileum was severed; this portion of the bowel communicating by the fistula with the outside was left *in situ* and the two ends united by a Murphy button. The Murphy button sloughed through and I had a fecal fistula again. This could only happen by the Murphy button sloughing into the old portion that was agglutinated to the newly united bowel. I had to make another exclusion, which makes it a unique case. The second time I used Frank's coupler, and this time it succeeded. The Murphy button has been in the bowel ever since and has apparently caused no damage; as far as pressure and other symptoms are concerned he is perfectly well. There are many pockets of excluded bowel, secreting now and then a cheesy white mass which comes out and may be squeezed out by the patient every two or three weeks. In the meantime he does not discharge anything outside; he squeezes out this thickened, cheesy mass, which relieves him, and afterward he feels well. I have lately operated on another case of tuberculosis, with acute symptoms of obstruction. In this case also it was impossible to do total resection of the tubercular mass. I left that in situ and made exclusion of this portion. I have not opened the excluded portion yet toward the outside, but I will do it in a few days because I am afraid it will accumulate masses which will perforate inward instead of outward. The two other cases were similar but not as extensive.

"The experience I have gained from these four cases differs somewhat from the experience of others. There is, for instance, Obalinski, who claims that the excluded portions atrophied and formed an entirely solid mass. He has made a section of a case after eight months' exclusion of the bowel and he has found the portion he excluded totally solid. Such a thing eight months afterward, I think, is impossible. He probably found some portion which has not been the bowel. This is the only case which is claimed to have gone from total exclusion to cicatrization. Perhaps it was a kind of bowel which had no mucous membrane. The other cases have all been treated the same way, some of them scraped and cauterized. All of these methods seem objectionable. I think the best way is to leave it as it is and keep drainage as long as possible, and allow the patient to remove the contents of such excluded bowel."

DR. L. L. MCARTHUR said he would like to refer to a case in which he was driven into this operation by an accident in the use of the Murphy button. The patient was an old man with carcinoma at the ileo-cecal valve, of slow development, causing hypertrophy of the ileum to the size of the colon, and atrophy of the colon beyond the stricture, to the size of a small intestine, producing symptoms to such an extent that the patient was extremely emaciated and exhausted. The only thing in contemplation at the time of operation was to make an anastomosis between the ileum and the ascending colon. The fact that the ileum was so markedly hypertrophied made it easy to insert the half of the button for that part

of the intestine, and the fact that the colon had atrophied to such an extent as to be smaller than the small intestine made it difficult to recognize the colon and difficult to insert the strong suture which is usually put in before incising the bowel for the second half of the button, due to some faulty dipping of the needle with failure to grasp the mucous membrane, that half of the button tore it loose from its attachment. The button was inserted in the colon, purse-string tightened, and when the ileum and colon were buttoned together fecal mater entered between the muscular and peritoneal walls of the colon. He immediately clamped the ileum again and found it necessary to excise that portion of the colon which has been infiltrated, to turn in its end where it had not been infiltrated, and to make an end-to-side anastomosis of the colon to the side of the ileum, not making a total, but a partial exclusion. He stopped at that, because the patient was in such a delicate condition. Emphasis should be made of the fact that where the distal portion of the intestine is atrophic an incision should be made in that portion and the overlapping stitch used to catch the mucous membrane firmly, and not let it be pushed away, as that may make a faulty union and fatal outcome.

In the case of the young boy that Dr. Owens operated on at the World's Fair for tuberculosis of the ileum from tubercular appendicitis, exclusion of the ileum was made, and the process being tubercular, later a successful effort was made to excise the cecum. It was tubercular and was left excluded for the time. A year later the boy died of pulmonary tuberculosis.

DR. D. A. K. STEELE said: "The case cited by Dr. McArthur illustrates what I intended saying with regard to the facility with which we may criticise cases as reported. Theoretically we ought always to have an ideal result; we ought to be able to do the very best thing at a given time and operation, but the fact is, frequently these operations are done to save life; usually they are done for the purpose of prolonging or making life more comfortable. I felt somewhat like asking Dr. Beck why the Murphy button was left in the portion of the bowel put out of commission, just as Dr. Bevan asked, why it was not removed in its entirety. The reason is apparent, I think, to those of us who have seen these cases. We know the impossibility of doing an ideal operation under such circumstances. There is a mass of tissue matted together which is difficult to recognize; the condition of the patient precludes a prolonged and more difficult operation than anastomosis, cutting off and excluding a portion for the direction of the fecal current through a new channel. Most of the cases I have seen have been of the class where operation was done for the purpose of saving life; where the condition of the patient would not permit the prolonging of the operation. I think Dr. McArthur will remember a case he operated on in the Chicago Hospital, where, in malignant disease of the cecum a simple lateral anastomosis was all that it was possible to do on account of the infiltration of the tissues and evident hopelessness of the case, but the life of the woman was prolonged some months with comparative comfort. Another, more recent case, comes to mind in which acute obstruction required the exclusion of the bowel in a lady, for a very long fibrous stricture of the rectum and apparently a portion of the cecum. An artificial opening or the left inguinal colostomy was the only proper operation to save the life of the patient. Subsequently the complete removal of the mass that takes the place of the rectum can be done. I allude to these cases simply to illustrate the impossibility of always doing an ideal operation."

DR. CARL BECK, in closing the discussion, said: "I will first answer the question of Dr. Bevan, why I did not remove this bowel. I tried in the first six operations to close the bowel by suture. You can imagine that the intestines were so matted together that I really could not recognize any portion of the cecum or ileum in that region, and it was very difficult to leave the whole matted portion outside. It was hardly possible to find the distal and the proximal portion because of the recent adhesions. This operation was done shortly after the Murphy button operation, and adhesions of the whole intestinal tract had to be severed, and it was difficult to determine which portion was running upward and which downward, so that we should not attach two faulty portions together. I did not remove the Murphy button, because at the time I did the operation I thought it had passed through the fistula. I did not watch it and the nurses told me that it had been thrown out, but I found afterward that the button was there. I think it is in one of the pockets, and it is not doing any harm, and the boy does not want it removed."

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

Philadelphia Medical Journal, July 21.

1 *A Bacteriologic Résumé of the San Francisco Plague. Ernest S. Pillsbury.
2 *Case of Primary Adenocarcinoma of the Gall-Bladder with Secondaries in Both Adrenals, Melanosis of Skin (Addison's Disease?), Vitiligo, and Hypertrophy of the Pancreas. Aldred S. Warthin.
3 *Three Cases of Tuberculosis of the Skin Due to Inoculation with the Bovine Tubercle-Bacillus. Mazyck P. Ravenel.
4 *A System of Personal Biologic Examinations, the Condition of Adequate Medical and Scientific Conduct of Life. George M. Gould.
5 *Are Consanguineous Marriages Injurious to the Race? (To be concluded.) Lawrence Irwell.
6 Peritonitis in the Fetus. J. A. Porter.

New York Medical Journal, July 21.

7 *The Pituitary Gland as a Factor in Acromegaly and Gigantism. (Continued.) Woods Hutchinson.
8 *The Prevention of Colds. Lorenzo B. Lockard.
9 *Syphilis of the Brain. (Concluded.) J. T. Eskridge.
10 *The Etiology and Cure of Hysteria. F. Walter.

Boston Medical and Surgical Journal, July 19.

11 *Milk; Its Production, Its Care, Its Use. T. M. Rotch.
12 *General Remarks on the Pathology and Symptomatology of Acute Pelvic Suppurative Processes in the Female and Their Treatment by Posterior Colpotomy. Charles G. Cumston.
13 Parturition Complicated with Suppurating Fibroids. E. H. Stevens.
14 Glandulopenile Hypospadias; Two Urethras, One Extending to the Bladder, the Other Two and One-Half Inches Long, and Terminating in a Blind Pouch. J. Coplin Stinson.

Medical News (N. Y.), July 21.

15 *Appendicitis and Typhoid Fever. H. A. Hare.
16 *The Physiologic Effects of Preparations of the Ductless Glands. R. H. Cunningham.
17 *Iodid of Iron in the Treatment of Certain Forms of Infective Arthritis. J. C. Wilson.
18 Moulds in the Stomach. J. H. Kellogg.
19 A Simplified Apparatus Without Valves for the Administration of Nitrous Oxid Alone or in Combination with Ether. S. Ormond Goldan.
20 *The Continued Use of the Antiseptic and Eliminative Treatment of Typhoid Fever Without Any Deaths. T. Virgil Hubbard.
21 Brief Notes on Rheumatic Joints Treated by Hot Air. Homer Gibney.

Medical Record (N. Y.), July 21.

22 *The Evidences of Prostatic Atrophy After Castration. Edward L. Keyes, Jr.
23 *Neglected Clinical Opportunities in American Medical Centers. S. A. Knopf.
24 *Does "Cross-Eye" Affect the General Health? Ambrose L. Ranney.
25 Report of a Case of Porro-Cesarian Operation. William J. Gillette.

Cincinnati Lancet-Clinic, July 21.

26 *Dermatitis Herpetiformis. A. Ravogli.
27 Some Gross and Microscopic Dermatologic Considerations from Lantern-Slides. M. L. Heidingsfeld.
28 *Two Cases of Anemia, One Pernicious, the Other Simple, Treated with Antistreptococcic Serum. W. H. DeWitt.

St. Louis Medical Review, July 7.

29 *Hypnotism in Therapeutics. Sydney Kuh.
30 *The Nerves in Consumption; the Other View. Thos. J. Mays.

Medical Fortnightly (St. Louis, Mo.), July 10.

31 Drainage and Closure of the Abdominal Cavity. T. C. Witherspoon.
32 Examination of the Blood in Cancer, with Microscopical Specimens. S. E. Munson.
33 Observations on Certain Early Diagnostic Signs in Measles. George Homan.
34 Surgery at the Meeting of the AMERICAN MEDICAL ASSOCIATION G. E. Black.

Medical Age (Detroit), July 10.

35 Some Deformities Corrected, Etc. (To be continued.) Daniel La Ferté.
36 Acute Otitis Media. Norton L. Wilson.
37 Throat Coughs. S. G. Dabney.

Virginia Medical Semi-Monthly, July 13.

38 *Wounds of the Abdominal Viscera Without Visible Injury to the Skin. George T. Vaughan.

39 Treatment of Delirium Tremens. D. P. Hickling.
40 Shall Alcohol be Considered as a Food? George M. Kober.
41 Report of Fatal Case of Rabies. Presley C. Hunt.
42 *Discussion of the Organic Obstructions of Defecation. Thos. C. Martin.
43 *Permanent Catheterization. J. Rilus Eastman.
44 The Essential Factors in the Operation for the Cure of Inguinal Hernia in the Male. H. O. Marcy.
45 Report of a Case of Confinement Following a Supposed Double Ovariotomy Complicated with an Intestinal Hernia Through the Old Wound. C. Henry Leonard.
46 Labor "Down Hill." Alexander Irvine.
47 Psychology as Preliminary to Medical Education. W. J. Herdman.
48 Acute Senile Endometritis. L. H. Dunning.
49 Pulmonary Tuberculosis. C. P. Ambler.

American Gynecological and Obstetrical Journal (N. Y.), July.

50 The Personal Factor in the Work of the American Gynecological Society. Ely Van De Warker.
51 *Intra-Abdominal Amputation of the Uterus: A Modification of Hysterectomy. F. H. Davenport.
52 *Relationship Between Dysmenorrhea and Appendicitis. Archibald MacLaren.
53 *Examination of the Sigmoid Colon. A. W. Abbott.
54 *Ectopic Pregnancies Operated on Before Rupture. The Significance of Intervillous Hemorrhages in the Interruption of Ectopic Gestation. C. E. Manlerre and Maximilian Herzog.
55 Two Cases of Genital Malformations: 1. Retrohymeneal Atresia; Hematocolpos et Hematometra. 2. Vagina Duplex et Utrus Septus. John M. Fisher.
56. Polyuria in Pregnancy. Wilmer Krusen.
57. Cancer of the Breast. R. Stansbury Sutton.

Chicago Clinic, July.

58 Gonorrheal Conjunctivitis. Allen T. Haight.
59 An Unexpected Termination to an Unusual Number of Epileptiform Convulsions. Marcus P. Hatfield.
60 Eclampsy. Gustav Kolischer.
61 The Fracture of the Ribs. W. A. Kuflewski.
62 The Intramural Sinuses and Nasal Fossæ. W. T. Ecklev.
63 Intubation and Tracheotomy. Aime Paul Heineck.

Fort Wayne Medical Journal-Magazine, June.

64 *Contagious and Infectious Diseases in Indiana. J. N. Hurty.

Clinical Review, Chicago, July.

65 *Present Treatment of Syphilis. Wm. Allen Pusey.
66 Etiology, Pathology and Treatment of Varicose Veins. F. Shimonek.
67 Case of Vesical Hernia in a Child. Charles Adams.
68 Clinical Lectures on the Etiology, Pathology, Diagnosis and Treatment of Tumors. A. H. Levings.
69. What Are the General Practitioner's Duties Regarding the Prevention of the Spread of Venereal Diseases. J. Noer.

American Medical Compend (Toledo, Ohio), July.

70 *Retinitis Albuminurica with Report of Cases. Francis W. Alter.
71 *Discussion of the Organic Obstructions to Defecation. Thos. Chas. Martin.
72 Infantile Diarrhea and Its Treatment. D. E. Bowman.
73 Defective Eyesight in School Children. G. A. Gilbert.
74 Phimosis and Its Treatment. H. A. Klussman.

Oklahoma Medical Journal, July.

75 A Plea for the Better Study of Diseases of Women by the General Practitioner. W. B. Pigg.

Denver Medical Times, July.

76 *The Causes and Importance of Digestive Disturbances in Pulmonary Tuberculosis. C. B. Van Zant.
77 Helps in Refraction by the Subjective Method of Examination. Melville Black.
78 *Chloretone in the Treatment of Confirmed Insomnia. E. A. Lee.
79 Local Use of Guaiacol in Treatment of Frequent, Painful Urination. Jesse Howes.
80 Pulmonary Embolism. F. E. Waxham.

Archives of Pediatrics (N. Y.), July.

81 A Case of Rhachischisis. T. M. Rotch.
82 A Fatal Post-Otitic Cerebral Abscess with Amnesic Aphasia. J. Henry Fruitnight.
83 Treatment of Hydrocephalus by Craniectomy. Edward P. Davis.
84 Intestinal Obstruction Through a Loop Formed by Meckel's Diverticulum with Ligamentous Attachment. Irving M. Snow.
85 Remarks Upon the Diplococci Resembling Gonococci, Found in the Normal Vagina of Children. Charles A. Rosenwasser.

University Medical Magazine (Philadelphia), June.

86 *Historic and Practical Remarks on the Operative Treatment of Cancer of the Cervix. John G. Clark.
87 Two Cases of General Anesthesia. Charles W. Burr.
88 Prosthesis of the Jaw at the Time of Operation. M. H. Cryer.
89 *Observations of Blood Changes Following Cellotomy. C. Y. White.

American Journal of Obstetrics (N. Y.), July.

90 *Syncytioma Malignum and Ectopic Gestation Causing Pernicious Nausea. Edward P. Davis and H. F. Harris.
91 *Selected Topics in Connection with the Pathology of Delivery. J. Clarence Webster.
92 *The Application of Forceps. J. E. Allaben.
93 *The Technique of Version. J. F. Percy.
94 *The Management of Impacted Cases. Henry F. Lewis.
95 *Mutilating Operations in Obstetrics. C. S. Bacon.
96 *Cesarian Section and Porro's Operation. Charles B. Reed.
97 *Symphyseotomy in Illinois. G. N. Kreider.
98 *A Method of Performing Anastomosis of Hollow Viscera by Means of a New Instrument. M. O'Hara, Jr.

Occidental Medical Times, (San Francisco), July.

99 The Plague—Report of Cases. W. H. Kellogg.
100 *The Plague in San Francisco. Douglass W. Montgomery.

Therapeutic Gazette (Detroit), July 15.

101 *An Eperimental Contribution to the Knowledge of the Toxicology of Potassium Chlorate. S. J. Meltzer.
102 *Hot-Air Treatment of Nervous and Joint Affections. Harold N. Moyer.
103 Gynecology in America. Wilmer Krusen.
104 Teaching of Therapeutics to Undergraduates. Eli H. Long.
105 Teaching of Therapeutics to Post-Graduates. Reynold W. Wilcox.

Dominion Medical Monthly (Toronto), June.

106 A Group of Unusual Spinal Cases. B. E. McKenzie.
107 Address, Toronto Association for the Prevention and Treatment of Tuberculosis. E. J. Barrick.

The Medical Herald (St. Joseph, Mo.), July.

108 *What Is the Value of Trauma as an Etiologic Factor in Tuberculosis of the Bones and Joints? Geo. R. Highsmith.
109 Medical London—A Few Hints to Those Who Visit Europe This Summer. Richard T. Hewlett.
110 A Medical Examiner for Our Public Schools. E. A. Donelan.
111 Traumatic Injuries to Skull, with Report of Two Cases. B. M. Spotts.
112 Cholera Infantum. A. E. Chatfield.

Medical Mirror (St. Louis), July.

113 Sanatory Ranch of the Marine-Hospital Service at Fort Stanton, New Mexico. Walter Wyman.
114 Two Practical Points in Cure of the Tubercular. William Porter.

Railway Surgeon (Chicago), July 10.

115 A Standard System of First Aid Instruction for Railway Employes. Charles R. Dickson.
116 Case of First Aid Under Difficulties. Evan O'Neill Kane.

Canadian Practitioner and Review (Toronto), July.

117 *The General Public and the Medical Profession. Adam H. Wright.
118 *Treatment of Squint (Strabismus) from the Standpoint of the Family Physician. J. T. Duncan.
119 *Morphia in the Treatment of Puerperal Convulsions. David Hoig.

Medical Summary (Philadelphia), July.

120 Treatment of Pulmonary Consumption Through the Nervous System. Thomas J. Mays.
121 Obstetrical Experience. C. E. Tucker.
122 State Board Examinations. S. A. Buchanan.
123 Successful Treatment of Acute and Chronic Ulcers. J. S. Caldwell.
124 Treatment of Gonorrheal Cystitis. Milton P. Creel.
125 Rheumatism. J. J. Waller.
126 Chorea—Its Nature and Treatment. Robert C. Kenner.
127 Influence as I See It in the South. Ben. H. Brodnax.

Medical Review of Reviews (N. Y.), June 25.

128 *Cancer of the Uterus. H. C. Cox.

Canadian Lancet (Toronto), July.

129 *The General Public and the Medical Profession. Adam H. Wright.
130 Electricity and Brain Power. James Grant.
131 Removal of Septal Spurs.—A Note Upon the Use of Carmalt-Jones Spokeshave. D. J. Gibb Wishart.

Providence Medical Journal, July.

132 The Relation of the Pathologic Labooratory to Hospital Work. W. T. Councilman.
133 Personal Recollections of the Early History of the Rhode Island Hospital. J. W. C. Ely.
134 Address Delivered at the Opening of the Pathologic Laboratory at the Rhode Island Hospital. G. A. Blumer.
135 Report of a Case of Movable Kidney Demanding Operative Interference. John C. Pegram, Jr.
136 *Opinion Evidence. Wm. H. Palmer.
137 *Some Things in Ophthalmology That Every Physician Ought to Know. F. T. Rogers.
138 *Appendicitis in Women. J. H. Davenport.
139 Appendicitis, with some Remarks Concerning Operative Technique. Walter Lee Munro.

Texas Medical Journal, July.

140 The Physician as a Sanitarian. W. S. Carter.
141 The Country Doctor. W. E. Fowler.

Carolina Medical Journal (Charlotte, N. C.), July.

142 Cough. Edwin Gladmon.
143 Hematuria. Chas. M. Hazen.
144 Remarks on the Diagnosis and Treatment of Mastoiditis. B. R. Kennon.

145 Essentials of Success with Glycerinated Vaccin—A Simple Vaccination Shield. C. Wilbor Ray.
146 My First Case of Midwifery. Richard H. Lewis.

AMERICAN.

1. **San Francisco's Plague Cases.**—In this article Pillsbury argues that the San Francisco plague cases, as demonstrated bacteriologically, were not true plague, but more likely due to the chicken-cholera bacillus, which closely resembles plague bacteria, but has certain peculiarities that distinguish it, and which he claims he has found in one case examined by him that had also been declared a typical instance of a pneumonic form of bubonic plague. He does not appear to have facts as regards the other cases examined by the City Health Board and the Marine-Hospital officers, but he assumes that they were all the same. He also argues that eleven of the thirteen cases of bubonic plague could hardly occur in the sporadic form without any connection with each other and without any evident transmission of the disease to others by them. He also claims that as no infected ships had arrived, as the clinical histories in all of these cases were distinct from those of any other recorded cases of plague, and as they were diagnosed by bacteriologic and inoculation experiments only, the facts are not conclusive as to the existence of the disease.

2. **Adenocarcinoma of the Gallbladder.**—Warthin discusses the conditions found in his case, which he thinks of great interest. Reviewed briefly, they are given as follows: Cholelithiasis followed by primary carcinoma of gallbladder, obstructive jaundice, compensatory hypertrophy of the pancreas, carcinomatous infiltration of the adrenals, melanosis of the skin —Addison's disease—followed by vitiligo.

3. **Tuberculosis of the Skin.**—Ravenel reports three cases of inoculation from bovine tuberculosis causing what he thinks was true tuberculosis of the skin, and dwells on the importance of recognizing contagion from this source. In two of his cases no bacterial findings were reported. With inoculation experiments, one caused tuberculosis in the guinea-pig. In the third case tubercle bacilli were found in sections from the diseased nodule excised. He believes that the greater virulence of bovine tuberculosis holds good for man as well as for other animals, and the cases that he has reported, with some from other sources, prove that the pathogenic power is fully as great as that of germs from the human source.

4.—See also THE JOURNAL of July 21, p. 134.

5. **Consanguineous Marriages.**——Irwell discusses the chances of degeneration following consanguineous marriages, quotes authorities at length and gives instances. The general result of his inquiry is not positively stated, from the fact that the illustrations given by him, as he himself admits, have more than one interpretation. In all, however, we have a specially healthy people to deal with in these cases, hence the comparative apparent innocuousness of consanguineous marriages. If such unions were common among neurotics and degenerates, he believes the results would be disastrous.

7. **Acromegaly and Giantism.**—Hutchinson finds from his study thus far on the subject of the phenomena of giantism, that the great number of over-growths are found at or near the tips of the segment-crescents, as in acromegaly, differing from the latter mainly that it is not exclusively confined to the tip of the segment or last division of the limb; that the facial part of the skull is enlarged out of all proportion, particularly in the region of the lower jaw, and that the condition, whether normal or morbid, distinctly tends to shortness of life and physical vigor. The giant is distinctly below par, and death usually comes from a steady increase of this weakness, or some trifling accident or mild intercurrent disease. The sexual power in a great majority of cases is far below par. There is a decided predominance of males among the victims of this condition. In all of these there is a decided parallel with acromegaly. Lastly, and of greatest interest, is the fact that the one morbid condition peculiar to both these disturbances of nutrition, the enlargement of the pituitary body, is found in the large majority of the cases of both. He reports and illustrates a number of cases of giantism. In his next communication he will give the results of his study on the microscopic nature of the over-growth of the glands.

8. **Prevention of Colds.**—Lockard's article is mainly a plea for the hardening and training processes for infants, and a protest against the effeminate methods of living, superheating of rooms, over-clothing, etc., so largely in vogue. As an example of the effects of training of infants, he reports the case of a child of Professor Stagg, of the University of Chicago. At two months, with a little aid, he could turn somersaults and stand on his head; at three months he could walk, and at seven months could raise himself from the recumbent to the sitting posture without using his arms.

9. **Syphilis of the Brain.**—In this instalment of his article Eskridge reviews the principal points of general and local diagnosis of syphilitic cerebral lesions; headache, disturbance of sleep, collateral symptoms like iritis, presence of secondary or tertiary manifestations, epilepsy, hemiplegia, etc. The forms of lesions, syphilitic growths, and chronic local syphilitic meningitis, with their symptoms of isolated nerve lesions are described. The prognosis is better the earlier the specific treatment is instituted, but the scars that are left are not amenable to therapeutics. The more he sees of syphilis of the brain the more difficult seems to him the problem of its treatment. Prevention of the tertiary lesions is largely to be secured by potassium iodid, usually by a sort of intermittent treatment covering a considerable period of time. The specific treatment must be governed by the acuity of the case and the results of medication. What we learn from a study of this subject is that, for a certain time, antisyphilitic agents may be given to the point of toleration for the removal of gummata, and that there are numerous non-specific intracranial lesions resulting from specific causes, for which specific medication is ineffective.

10. **Hysteria.**—According to Walter, if a massive culture of the colon bacillus originally taken from non-infectious sources is administered to subjects of hysteria of active or convulsive type—latent or post-hysterical phenomena, such as paralysis being excluded—the patient is restored to health so far as the hysteria is concerned, though debility or neurasthenic phenomena may remain indefinitely. He claims that the uniformity of this result makes the treatment a sort of specific. He takes the bacillus from the stomach or intestinal mucosa of the hog, from the dejections of the same animal or from the barnyard fowls, and makes agar cultures. When it is all developed it can be scraped off, suspended in water and mixed with some indifferent substance, as starch, and administered in capsules. The well-matured growth on one Petri dish may serve to make from three to six doses. This given three times a day will be sufficient. The growth should be fresh, otherwise no results are obtained. This treatment does not seem to be very attractive.

11. **Milk.**—The motive of Rotch's article is the importance of getting safer milk for children's use, and he emphasizes the fact that it will be necessarily somewhat expensive. We can not have the required care given and the quality insured at the ordinary cheap prices. The chief principles insisted on are: 1. That the milk must be obtained from healthy cows by the most cleanly and antiseptic methods known. 2. That it must be taken care of under the most strict precautions. 3. That it must be delivered to the consumer as quickly as possible.

12. **Posterior Colpotomy.**—The pathology of pelvic suppuration in the female is described by Cumston, together with its etiology, symptoms, etc. The advantages of posterior colpotomy for the relief of many cases of this condition are insisted on. He thinks that it is a justifiable procedure in a large majority of cases and, if we can cure the patient by a simple operation, that is the one to be selected. The operation is described and its safety and simplicity shown. While it is not claimed that it will cure all cases, it has a field of usefulness not as fully appreciated as might be.

15. **Appendicitis and Typhoid Fever.**—The object of this article is first to call attention to the cases of typhoid which begin with symptoms of appendicitis and, second, to the cases of typhoid with later-developing appendicular symptoms. Both classes of these are illustrated by cases. Hare believes that appendicular symptoms in the first stage of typhoid are by

no means rare, and a differential diagnosis is important. The leucocytosis, which will be of use in some cases, is not always a perfect guide, though its absence may be of some value. In the ordinary cases of appendicitis it is a well-known fact that the white blood-corpuscles are increased in number, while the reverse is the case in typhoid. The possibility of a patient being about to pass through a course of typhoid is not a contraindication to operation, though it seriously complicates the case.

16. **Ductless Gland Preparations.**—Cunningham, noticing first the enormous number of preparations on the market, reviews the different ones that have been more prominently advertised. The pituitary extract has not been a success, according to clinical experience. Suprarenal extract has a decided utility in local complications of mucous membranes, and, when used internally, it seems to have a beneficial result in certain cases of asthma, cardiac trouble with diseased arteries and Graves' disease. We may also say that it has abbreviated about 58 per cent. of the cases of Addison's disease, but its therapeutic value in general diseases is not yet decided. He does not speak with any enthusiasm as regards thymus extract, though he has had benefit from it in some instances. He thinks the excellent results sometimes obtained with it may be attributed to the nutritious food the patients receive when they eat several ounces of slightly cooked thymus daily. The therapeutic position of thyroid extract is well assured in certain forms of disease like myxedema and where the disorder is due to diminished thyroid function. The author does not use the ordinary commercial desiccated thyroid extract, but prefers the more reliable and equally active purified colloid obtained by himself from fresh sheep thyroid by precipitating an alkaline solution with glacial acetic acid.

17. **Iron Iodid.**—Wilson has found iron iodid effective in several cases of arthritis where the ordinary rheumatic remedies failed. He publishes cases illustrating his statement. He finds this method especially valuable in gonorrheal arthritis, and uses it in half-dram doses of the syrup, gradually increased with very satisfactory results. Several of his associates in clinical work have also tested the treatment with equal advantage.

22. **Castration for Prostatic Atrophy.**—The history of the operation of castration for prostatic atrophy is reviewed by Keyes, who sums up his conclusions on the subject as follows:

1. Experiments, whether on man or the lower animals, relating to the normal prostate do not of necessity apply to the enlarged prostate.

2. I know of no direct pathological evidence that castration has ever caused atrophy of a hypertrophied prostrate.

3. There is direct pathological evidence that in a few cases castration has failed to cause atrophy of the hypertrophied prostate.

4. The majority of cases reported thus far have been labeled "cured" or "improved" so soon after operation that many of them are doubtless instances of local depletion.

5. Clinical evidence of this is afforded by relapses occurring months after the operation.

6. Of the permanent cures some may well be instances of permanent advantages derived from reduced congestion.

7. The clinical evidence as to the actual atrophy of the prostate after castration lacks, as yet, its scientific confirmation, and has failed thus far to prove its title to the surgeon's credence.

23. **Neglected Clinical Opportunities.**—Knopf points out the defects of clinical instruction in our great medical centers and the comparatively limited opportunities for hospital interneship according to our present system. He suggests the unification of our medical colleges and the appointment to hospital positions only of those who can act as clinical instructors without regard to college affiliation, to the partial suppression of didactic lectures and their substitution by clinical work. He gives his plans in detail.

24. **Strabismus.**—This paper by Ranney is along the usual line of magnifying effects on the general conditions of ocular abnormalities. He thinks that a small percentage of cases of cross-eye owe their deformities to refractive errors. Serious nervous phenomena may co-exist in this class of cases. Where this is not the case, the phenomena do not occur. Those who suffer only occasionally are especially liable to reflex nervous conditions. He points out the methods of testing, the advantages of the phorometer and the tropometer, and the value of operations, which are now-a-days done without pain under cocain.

26. **Dermatitis Herpetiformis.**—Ravogli's article is a rather lengthy description of this condition, the prognosis of which is not very bad, but, in fact, is rather favorable. The treatment recommended is attention to the general condition of the subject, good diet, avoidanc of mental strain, worry, overwork, and alcohol, care as to the digestive organs, condition of the bowels, and the use of tonics. Arsenic has not proved beneficial in his hands. The external treatment with carbolic acid solutions. ichthyol, etc., is of importance. Permanent recovery is to be expected in these cases.

28. **Antistreptococcic Serum in Anemia.**—DeWitt reports two cases, one of pernicious, the other of simple, anemia, in which he gave injections of antistreptococcic serum with the very best results, though he administered at the same time iron and arsenic. He does not, however, attribute the good results to these latter agents. The dose of the serum was 8 c.c. at intervals of two or three days.

29. **Hypnotism in Therapeutics.**—Kuh relates cases where hypnotism had a disastrous effect and states as of his own knowledge that Krafft-Ebing has had unpleasant results from this agency, though he has carefully refrained from publishing them. He does not believe, moreover, that it is more beneficial than other equally available and safer remedies. He concludes that hypnotism is not so safe a remedy as others employed for the same purpose, and that it is not more active in relieving most of these symptoms of disease for the cure of which it is used than other methods. Since the very patients from whom we may expect good results—the neurotics—are also the ones most liable to injury, we should be doubly careful in employing it.

30. **The Nerves in Consumption.**—Mays discusses the nervous influence in consumption and thinks that the most beneficial results will follow the treatment directed to the protection of the nervous system.

38. **Abdominal Injuries Without Skin Lesions.**—These cases, which are often very important and also difficult of diagnosis, are treated at length by Vaughan, who discusses the symptoms and methods of operation, and reports cases which have occurred in his practice. The questions for the surgeon's consideration are: Does the lesion require celiotomy? What organ is probably injured? The temperature is not reliable, as it is usually lower in serious cases—probably from shock—and rises later. The pulse is increased and is often a good index in regard to the cases, a weak thready pulse indicating trouble. Pain and tenderness are always present to a greater or less degree, and may help in localizing the injury. Vomiting is almost certain to occur when the stomach is involved and may appear with injuries to the intestines and liver. Restlessness and thirst indicate hemorrhage or peritonitis. A pinched expression with dilatation of nasal alæ is a valuable symptom, but its absence is not conclusive. Rigidity of the abdominal muscles with or without distension is another valuable symptom, but not always an early one. Blood in the vomit, stools or urine is also to be considered. After opening the abdomen he first stops the hemorrhage, and yards of gauze may be demanded in some cases when the sources of hemorrhage are numerous. Compression of the abdominal aorta may be necessary in extreme cases. Laceration of the stomach or intestines and rents in the solid viscera should be sutured, but extensive laceration of the spleen or one kidney requires removal of the organ. If the contents of the stomach or bowel have escaped into the peritoneal cavity, free irrigation with salt solution is necessary, but if only blood is found, sponging it out will be sufficient. Drainage is a question to be decided in each case. The intravenous injection of salt solution, six parts to 1000, has saved the lives of many patients. He reports cases of rupture of the jejunum, injury of sigmoid flexure, laceration of liver, pancreas and spleen, left kidney and rup-

ture of the diaphragm. In none of the cases reported was there recovery.

42.—See also ¶ 71.

43. **Permanent Catheterization.**—Eastman remarks on the tolerance of the urethra for the rubber catheter and thinks the danger of permanent catheterization has been somewhat overestimated. After it has been in position two or three days, a distinct tolerance is established. He reports two or three cases illustrating these points.

51.—See abstract in THE JOURNAL, xxxiv, p. 1338.

52.—Ibid., p. 1339.

53. **Examination of the Colon.**—Abbott describes his method of examining the rectum and lower portion of the sigmoid flexure. He found by experimental demonstrations that it is possible to inspect ten to twelve inches of the lower bowel without serious difficulty. The instruments which he has used for this purpose are only straight flat pieces of steel with four inches bent down for a handle. The sizes he has found most convenient are one twelve inches long and three-fourths of an inch wide; one ten inches long and one-half an inch wide; one eight inches long and one-quarter of an inch wide. Of course, great care must be used when the caliber of the bowel is reduced or the resiliency diminished by inflammation or tumors.

54. **Ectopic Pregnancy.**—Manierre reports cases of ectopic pregnancy operated on before rupture. The pathologic report is given by Dr. M. Herzog. In these cases pregnancy was only a few weeks old and was accompanied by uterine hemorrhage, which suggests the possibility of this as a useful sign that the fetus had died from intervillous hemorrhage. If it be possible, as Herzog remarks, to establish a set of symptoms characteristic of intervillous hemorrhage, it will be a valuable practical point and may save many patients from the dangers following rupture.

64. **Contagious and Infectious Diseases in Indiana.**—The diseases considered by the Secretary of the Indiana State Board of Health are tuberculosis, typhoid, diphtheria, scarlet fever and the diarrheal diseases of infancy. He thinks that the schools are largely the disseminators of diphtheria and scarlet fever, and that they should be cleansed and disinfected thoroughly.

65.—See abstract in THE JOURNAL, xxxiv, p. 1415.

70. **Retinitis Albuminurica.**—The conclusions of Alter's paper are, in substance, as follows: 1. Retinitis albuminurica indicates a highly toxic condition of the blood, which, in chronic kidney diseases, will prove fatal within one, or, at most, two years. 2. The eye symptoms in such cases are always the first definite demonstrable lesion of chronic kidney disease; particularly is this true of the shrunken kidney. 3. Retinitis from Bright's disease assumes two forms—exudative and degenerative. In the first, occurring with acute nephritis, recovery with serviceable vision is possible. In the second, connected with chronic nephritis, recovery is impossible. 4. Retinitis occurring in pregnancy gives evidence of a toxic condition of the blood, which endangers the life of both mother and child, and unless remedies have an inhibitive effect, abortion is justifiable, especially when retinitis occurs in the early stages of pregnancy, or if previous pregnancy has already left its imprint on the retina of the optic nerve. 5. The appearance of the lesion in albuminuria so vividly described first by Liebreich does not agree with the ophthalmoscopic picture in the majority of cases. Probably not more than one-half agree with his description. The paper concludes with a plea for the more general use of the ophthalmoscope by the practitioner.

71. **Organic Obstructions to Defecation.**—Martin's article pleads for the surgical treatment of mechanical disturbances of defecation due to the valves which he has described. See also title 42.

76. **Digestive Disturbances in Tuberculosis.**—The questions asked by Van Sant are: 1. Are dyspeptics more prone to tuberculosis than others? 2. Are tuberculous sufferers more prone to the development of digestive disorders than others? The answer to the first is, he thinks, absolutely in the affirmative, hence the importance of attending to digestive disturbances in persons predisposed or exposed to the disease. The answer to the second is also in the affirmative. He thinks the digestive disorders of consumptives, as a rule, purely functional, but they may represent organic changes. The important bearing of these disorders can not be too greatly emphasized. We can not too promptly attack and attempt to cure these harmful conditions and meet any disease that may exist.

78. **Chloretone.**—Lee finds chloretone one of the most satisfactory narcotics, and better results have been obtained by it than by any other remedy of its class that he has prescribed. It has the effect of keeping up a soothing and satisfied condition after awakening. He had also had the very best results in a case of senile chorea of great severity. Nothing could have had a happier effect than a six-grain dose of this hypnotic given every four hours. He also reports excellent results in several cases of whooping-cough.

86. **Cancer of the Cervix.**—Clark reviews the history of operative treatment of cancer of the cervix, reproducing Freund's original case. He has, with others, suggested that the pelvic lymph-glands should be removed in cancer of the uterus, but subsequent investigation has proved that the lymph-glands are not so frequently involved as has been estimated. He thinks that removal of the pelvic lymph-glands is of greater prognostic than therapeutic value. They are freqently not the site of metastases even in cases of excessive involvement of the uterus, as Cullen has shown. As regards the operation, he thinks the modification of the combined method recently suggested by Werder, of Pittsburg, offers the best chances for the thorough removal of the cancerous processes. He first performs an abdominal section and ligates both the ovarian and uterine blood-supplies. The uterus is separated from its pelvic attachments and pushed down into the vagina, after which the peritoneum is whipped together over the site of the operation. This step being completed, the patient is placed in the lithotomy position and, with strong tractors, the uterus is drawn outside the vaginal outlet, which greatly facilitates the excision of a large portion of the vagina either by actual cautery or by knife. Clark feels certain that the cautery is preferable to the knife, as it removes all cancerous tissue that is possible. Treatment of cancer is lamentable from the point of view of radical cure, and by no means what ideal surgery demands. It is to be hoped that a cure may be found by some other than surgical methods. These remarks are especially applied to cancer of the cervix. In cancer of the fundus, recurrences are infrequent after hysterectomy, and the prognosis for complete cure is good.

89. **Blood Changes Following Celiotomy.**—White reports studies of the blood in cases subjected to major gynecologic operations. The prolonged etherization and pathologic lesions have, to a certain extent, their expression in the blood. Postoperative changes in this condition have been only partially studied, and it is his hope to elaborate previous studies in order to see the relation of these reactions to convalescence, and the presence of these reactions in impossible complications that might arise. Counts and estimates were made twenty-four hours before the operation, within five hours after operation, and then every twenty-four hours, until the patient's leucocyte-count had returned to normal, while the patient had so far recovered as to make further examination unnecessary. The percentages of leucocytes do not go hand-in-hand with the daily number of erythrocytes, which is undoubtedly due to change in the blood in many cases. The erythrocytic count previous to operation showed in each of these cases a greater richness of blood than would be expected from a general inspection of the patient. The preparation of the patient had undoubtedly something to do with this richness, the purgative causing concentration of the blood. The direct effect of the operation on the erythrocytic count within the first five hours was an increase in 34.6 per cent. of the cases and a decrease in 53.8 per cent., while in 11.5 per cent. there was practically no change. In all those which showed an increase there was more or less excessive vomiting, which had a tendency to further concentrate the blood. In the succeeding counts many of the cases showed variations. These were irregular in 26.9 per

cent., with progressive decrease in 38.4 per cent., and progressive increase in 34.6 per cent. Sudden increase or decrease is indicated by such factors as vomiting, fever, loose stools, and a difference in the amount of fluids taken and urine voided. At the final count the erythrocytes were found to have actually decreased in 62 per cent., increased in 23 per cent., and remained stationary in 15 per cent., but the changes were so slight as to hardly deserve consideration. The study of leucocytes offers more distinct features in cases where there is inflammation alone, or inflammation with pus; 53.8 per cent. showed the leucocytes to be within normal numbers, and 46.2 per cent. showed slight leucocytosis. Of these cases 69.2 per per cent. were in the subacute or chronic stage, while 30.8 per cent. were acute. In the seven cases in which neoplasms were present, three were malignant and four benign. Three of the seven cases showed slight increase of leucocytes. Backward displacement of the uterus gave no leucocytosis, while one case of prolapsed ovary gave 12,920, and another case of displacement 10,840. The differential counts in all these cases before operation did not differ from the counts of like pathologic process under the same conditions in other parts of the body. The eosinophila mentioned by Neusser as occurring in diseases of the reproductive apparatus was not found. The increase of leucocytes after operation must be due to various factors, and first among these is the effects of ether. Following this come traumatism and breaking up of adhesions together to produce the post-operative leucocytosis which was constantly seen in these cases. The highest count was recorded within five hours after the operation, excepting in severe cases, where glass drains were used, and tended to fall to normal in a few days, excepting in rare cases, when it was somewhat delayed. The average was 20,975 in the total of his cases. Post-operative leucocytosis consists in a relative and absolute increase of the polymorphonuclear neutrophiles, and absolute increase, at the expense of the other cells in 59.2 per cent.; an absolute increase with increase of other cells as well in 25.9 per cent., and an absolute increase with no change in the number of other cells in 14.9 per cent. of the cases. The polymorphonuclear cells were increased in 40.7 per cent., decreased in 48.1 per cent., and unchanged in 11 per cent. The transitional cells were increased in 56.5 per cent., decreased in 48.1 per cent. and unchanged in 11.0 per cent. The lymphocytes increased in 18.5 per cent., decreased in 70.3 per cent. and remained unaffected in 11.1 per cent. of cases directly following operation. The eosinophiles disappeared in 96.3 per cent. of the cases during the highest leucocytosis; in 3.7 per cent. or one case, they remained, but in reduced numbers. They returned after several days with decrease of leucocytes; their number was then decreased only in three-fourths of the cases, but in one-fourth was apparently increased. Complications during convalescence had their expression in the blood in an absolute increase of the total leucocyte count, or a relative or absolute increase in the polymorphonuclear neutrophiles, or sluggish fall in the total number of cells daily estimated. The author discusses the value of blood-examination in such cases. He thinks that it is only a part of the thorough investigation of the patient and should be considered in this connection. He thinks the range of 5000 to 10,000 leucocytes usually given as normal is too wide a limit, though leucocytosis can hardly be considered to be present when they are under 10,000.

90. **Pernicious Nausea of Pregnancy.**—Davis briefly reports two cases of pernicious vomiting of pregnancy of somewhat unusual types. In the first case the ovum was situated in the cornu of the uterus, and had ruptured into the abdominal cavity. The patient recovered. In the second case there was ectopic gestation with excessive headache and vomiting. The patient finally succumbed. A tumor was found attached to the optic thalamus and another tumor was found in the left kidney which were diagnosed as syncytioma malignum. The pathologic examination is reported in full by Professor Harris, Jefferson Medical College, who remarks that this case strongly suggested a very unusual and peculiar form of parasitism. The syncytial masses were found not only in the kidney and brain tumors, but in the thyroid, liver and other portions of the body, rapidly destroying the tissue with which the new formations came in contact, the whole making a picture familiar to every pathologist in connection with infected processes. He has not found any literature in reference to cases of pernicious nausea in which syncytial growth was an active factor.

91.—See abstract in THE JOURNAL, xxxiv, p. 1413.

92.—Ibid., p. 1414.

93—Ibid.

94.—Ibid.

95.—Ibid.

96.—Ibid, p. 1415.

97.—Ibid., p. 1414.

98. **Intestinal Anastomosis.**—O'Hara describes a method of intestinal anastomosis consisting of the use of two pairs of forceps clamping the intestine which is excised between them close up to their surfaces and suturing over them. When they are withdrawn, a single stitch or two fills up the opening left. The article is fully illustrated.

100.—See JOURNAL, July 14, p. 86.

101. **Potassium Chlorate.**—Meltzer has experimented on dogs with potassium chlorate and finds that it is a direct poison to the nerve-cells, which are at first intensely excited, then paralyzed by it. He asks whether we may not assume that a certain proportion of it reaches the brain, especially the respiratory center, in sufficient concentration to paralyze it.

102.—This article has appeared elsewhere. See THE JOURNAL, xxxiv, ¶ 123, p. 1481.

108. **Trauma and Joint and Bone Tuberculosis.**—Highsmith reviews the authorities in regard to the possibility of trauma exciting tuberculosis of the bones and joints, and finds as a result of his investigation of the literature and also his own experience that accidents are credited as causative factors where really the evidence is not sufficient to satisfy the intelligent investigator. He asks, too, how many cases of accidents have we seen in subjects of pulmonary tuberculosis when the whole system is reeking with infection, and no manifestation of tuberculosis of the bones at the point of local injury.

117.—See also title 129.

118. **Treatment of Squint.**—The treatment of strabismus from the standpoint of the family physician is summed up by Duncan as follows: 1. In a child aged three years or over, he would in every case (with the exceptions noted) advise a thorough examination of the eyes, so as to ascertain the refraction. 2. He would advise that this be done as soon as possible, but if some weeks must elapse before this can be done, he wouud use atropin drops once, twice or three times a day in both eyes, ordering that the drops be left off for at least two weeks before the child goes to be examined. 3. If it be reported to him that the child needs to wear glasses, he would exercise his influence with the parents to see that they were worn. 4. In case of any hesitancy on the part of the parents to attend to the matter, he would free himself from responsibility by pointing out some of the dangers of delay: 1. The child may be permanently cross-eyed. 2. He may be partially blind. 3. An operation may be needed in after years. 4. The operation, although it may straighten the eye, will not cure the blindness.

119. **Morphia in Puerperal Convulsions.**—Hoig concludes that while morphia is a valuable, and perhaps the most valuable, drug for the control of puerperal convulsions, he is not inclined to call on it in the worst types of the disease with complete suppression of the urine and a comatose state between attacks. In such cases he would prefer to use other remedies for diaphoresis and free action of the bowels. Morphin is much less useful in non-albuminous cases than in those where albumin is present, and may be even harmful in such cases. It is practically of little value before delivery, chloroform being the preferred drug at that period, and to be efficient it is necessary to use it in large doses, as much as .5 grain being borne without harm resulting.

128. **Cancer of the Uterus.**—Coe insists on the importance of early diagnosis as a prerequisite to successful operation

for cancer of the uterus. The proportion of operable cases will be increased only by the general education of the profession and laity regarding the vital significance of hemorrhage as an initial symptom. Every suspicious case should be most rigidly scrutinized, the microscope being also utilized. Before assuming a case as favorable for radical operation a careful examination should be made under anesthesia. Whatever the operation is to be it should be thorough; unless the incision can be made in the healthy tissue, well beyond the diseased area, and all outlying foci can be removed, the operation is palliative rather than curative, hence the probability that abdominal hysterectomy will be the future chosen method.

129.—See also title 117.

136. **Opinion Evidence.**—This article by Palmer reviews the subject of medical expert testimony in a very satisfactory way, showing how its defects that have been so deprecated may very easily and naturally arise. Medicine is not an exact science, and the chances, therefore, for differences of opinion are the greater and the restrictions placed by law upon testimony are often provocative of the evils. He mentions the various methods that have been offered to mend the matter: The appointment of state experts; examination by the court; conference between experts, etc. He believes that the latter is the best method of obtaining agreement in such cases.

137. **Eye Diseases that the Practitioner Should Recognize.**—Among the special points which Rogers claims every practitioner should recognize in diseases of the eye are: The presence of foreign bodies, distinction between various phlyctenular types and diseases of the conjunctiva as distinguished from iritis, the diagnosis of iritis, of glaucoma, need of distinguishing refraction errors, etc. He believes that the more common affections should be treated by the general practitioner, though the more serious and complicated ones should be referred to the specialist.

138. **Appendicitis in Women.**—The following are the conclusions of Davenport's article: 1. Appendicitis is not so rare a disease in women as has been generally supposed. 2. On account of the smaller size and better blood-supply of the appendix in the female it is less liable to become so acutely inflamed as to call for operation, and, too, on account of the many diseases in the female with which appendicitis may be confounded, its true diagnosis is often overlooked. 3. In every abdominal section, for whatever purpose, it is absolutely essential for the best interest of our patients to examine into the condition of the appendix. 4. Appendicitis is frequently observed as a complication or extension of many of the pelvic disorders of women where it had not been suspected prior to operation. 5. Appendicitis may be the cause of salpingitis or right-sided pelvic suppuration, but probably more frequently happens as a result or effect. 6. Chronic appendicitis is sometimes found to be the sole trouble in women of a neurotic temperament, when a previous false diagnosis of ovaritis or ovarian neuralgia has been made. 7. The differential diagnosis of appendicitis and the various diseases of women with which it may be confounded becomes comparatively easy if a complete history of the case is taken in connection with a carefully made physical examination.

FOREIGN.

The Lancet, July 14.

On the Confusion of Two Different Diseases Under the Name of Rubella (Rose-Rash). CLEMENT DUKES.—From his experience the author concludes that two diseases are confounded under the general name of rubella. The second form represents a distinct condition varying slightly in the course of the eruption, which is more discrete at first and covers the whole body in the course of a few hours. The throat is more swollen and velvety in appearance, desquamation is more thorough, resembling in this respect scarlet fever, and the disease is not so infectious in the early stages as is rubella. He reports cases that he has observed, and concludes that while its resemblance to scarlet fever in many cases is close it can not possess any affinity with that disease, since both occur concurrently in the same epidemic, and some individuals have one disease following the other. Nearly one-half the cases in which this new type occurred had had the regular rubella within a year or two, which is not credible, according to Cullen's established law.

A Note on the Results Obtained by the Anti-Typhoid Inoculations in the Beleagured Garrison in Ladysmith. A. E. WRIGHT.—This brief report of statistics of anti-typhoid inoculations in Ladysmith garrison shows there must be a real protection from the procedure. In the uninoculated the disease occurred in the proportion of 1 to 7.07, while in inoculated subjects it occurred in 1 to 48.7, and deaths in the two classes were in the proportion of 1 to 32 and 1 to 213, respectively. The proportions of deaths in those attacked were very nearly alike. Among the officers alone the figures were not quite so favorable, though still showing the proportion in favor of inoculation as compared to uninoculation. Wright is not certain as to the perfection of the inoculation given in these cases. In only two cases amongst those who had been twice inoculated was there any typhoid fever. Therefore, it seems that the double inoculation is a considerable additional protection. It may be possible that certain of the officers set down as inoculated may have been inoculated with anti-typhoid serum and not with vaccin consisting of sterilized typhoid cultures, and it is also possible, owing to the exigencies of military service, that they did not receive the full dose in all cases. He has found some instances where not more than one-fourth of the usual dose had been given.

Illustrations of Vasectomy or Obliteration of the Seminal Ducts Relative to Hypertrophy of the Prostate and Bladder Atony. REGINALD HARRISON.—The writer finds that vasectomy is equally effective and a very much safer operation than castration. The latter operation has in the aged sometimes produced serious trouble and occasionally is dangerous to reason and often to life. The operation of vasectomy causes, according to his observations, when performed in the manner prescribed in a previous paper, no untoward results whatever, and does not at all interfere with the internal secretion functions of the testicles, the absence of which is considered responsible for many of the effects observed after castration.

British Medical Journal, July 14.

The Importance of Post-Graduate Study. WILLIAM OSLER.—In this address Osler points out the advantages of post-graduate study and its needs amongst all classes of physicians. He thinks that the majority of us are apt to fall into the ruts of routine, hence the necessity of something to bring us out in contact with the progressive world, and the specialists are the ones that fall into the deepest ruts. No men need renovating more frequently than those who teach in schools of learning, the very dogmatic ways necessary to the teacher react upon him and intellectual staleness begins. In the conclusion of his lecture he speaks of the tendency to advance in the United States, and prophesies that English physicians of the twentieth century will find their keenest inspiration in the land of the setting sun.

Degeneration of the Neurone. FREDERICK W. MOTT.—In this fourth lecture Mott dwells on the close relationship, etiology, and pathology of tabes and general paralysis, showing that in both the syphilitic poisoning is the original cause and in both there are juvenile hereditary forms. In his experience about 10 per cent. of cases of paralysis are associated with the tabetic cord lesions. In the one disease we have the disorder affecting the exogenous afferent spinal neurones, and in the other especially the neurones of the frontal and central convolutions of the hemispheres, but in both a similar process may take place. He reasons out the etiology of paralysis by assuming that it starts in venous congestion, which especially affects the portions of the brain involved. The following are the reasons advanced for considering it a primary degeneration of the neurone with secondary meningo-encephalitis. 1. Its relation to tabes. 2. The existence of the Argyll-Robertson symptoms in the majority of cases. 3. The existence of a gray atrophy of the discs more frequently than can be explained by mere coincidence, which can only be accounted for as a primary atrophy. 4. The evidence of wasting of the whole nervous system, affecting some parts more than others, but out of proportion to the evidences of inflammation. This must be primarily in the nervous system, for in no cachectic disease nor even in starvation do we find such

extensive wasting take place. 5. Thickening of the pia-arachnoid membrane is proportional to and corresponds with the degree and locality of the atrophy, so it is with tabes. 6. In many cases the tabes, especially those with mental symptoms, atrophy of the tangential and superradial association fibers of the brain are found, quite similar to, but in different situations to those of general paralysis. 7. In cases of well-marked meningo-encephalitis, where there is no question as to its inflammatory nature, we do not find this extreme atrophy. As an example of efferent neurone degeneration he mentions amyotrophic lateral sclerosis, which must be due to some form of autointoxication. Peripheral neuritis is also discussed and questions of heredity in its relations to degeneration of the neurone, especially as illustrated by juvenile general paralysis, are also treated.

Annales de Dermatologie (Paris), June.

Anatomic Evolution of Syphilis. GASTOU.—Examination of the cadavers from Fournier's service during the last seven years has established that syphilis favors infections, especially hospital tuberculosis, cancer and various microbian associations. The anatomic evolution of the disease is shown to be, first a period of incubation, a silent interval extending from the inoculation to the appearance of the chancre, during which the pathogenic microbe of syphilis, leading a strictly anaerobic existence, produces lesions in the lymphatic system. The rare autopsies of syphilitic patients dying during this period, or as the chancre is first appearing, show these lesions predominating in the lymphatic system, and thus testifying to a general infection. The invasion period begins with the chancre and includes a second phase, the eruptive, a typical eruptive fever, whose anatomic localizations are on the venous system, and indicate that the pathogenic germ is a facultative anaerobe. This second, virulent, contagious period characterizes the disease essentially, and transmits it congenitally. It kills by cerebrospinal, hepatic or embryonal infection, and is cured by the specific, mercury. The third period is a true medical septic pyohemia, in which the specific microbe, its toxins and microbian associations focus on the arterial system all the energies of the disease. In this period the soil is more important than the germ. The disease creates an eruptive polymorphism which simulates any skin disease, and organic lesions which simulate those of any infectious disease. It is this period which begets degeneracy and malformations. It is characterized by infiltrations and scleroses, curable with potassium iodid. This conception of the evolution of syphilis and of the anaerobic existence of its microbe, indicates the importance of discovering a culture-medium for it which will reproduce the conditions of the lymphatic and venous systems in which it flourishes in the organism.

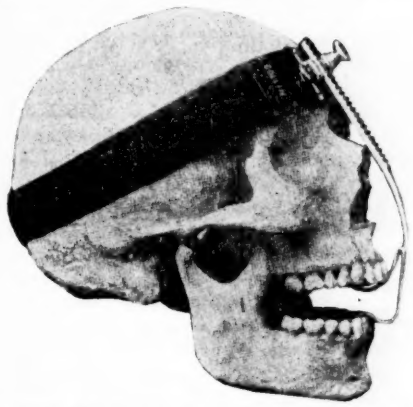
Annales de la Soc. Med.-Chir. de Liege, May.

Curvature of Head of Tibia in Fetus. A. BRACHET.—Scientists have always been much interested in the fact that the skeletons of pre-historic races show a backward curvature of the head of the tibia, apparently incompatible with an erect posture. Retzius has recently announced, and his statements have been confirmed by Brachet, that the tibia in the fetus invariably presents this anomaly, which changes to normal straightness during the first few months of life. It is more pronounced the younger the fetus.

Bulletin de l'Academie de Medecine (Paris), June 26.

Inhalation of Gaseous Antiseptics. P. LACROIX.—The principle of the inhaler invented and urgently recommended by Lacroix is the passing of a current of air through a mixture of .5 menthol, two to ten drops of bromoform, and five drops to twenty gm. of formic aldehyd, heated in an air-tight vessel, the patient inhaling the fumes generated. The microbicidal action was shown in tubes inoculated with pus, into which the current of air from the inhaler was turned for forty-five minutes, with the result that no cultures developed. Tuberculous sputa were also treated with the fumes for five hours and a guinea-pig was then inoculated with .5 c.c., with no effect on the health of the animal. The larynogoscope shows that there is no congestion of the tissues in the throat after inhalation of the fumes for therapeutic purposes, but the mucopurulent secretions of chronic laryngo-bronchitis dry up, and there is general relief and improvement in all pulmonary troubles. Bacillary ulcerations in the larynx become cicatrized; tuberculous laryngeal catarrh is healed, etc., while there are no inconveniences from the inhalations except a slight, transient sense of fullness in the chest at first.

Appliance for Anesthesia. A. REVERDIN.—The chief danger in administering an anesthetic is the possibility of arrest of the heart action by reflex action from the nasal mucosa.



Reverdin causes his patients to inhale the anesthetic—preferably ether—through the mouth for this reason, and keeps it automatically open for the purpose by the simple contrivance shown in the cut.

Differentiation of Abscess in Cerebellum. DIEULAFOY.—Any otitis, acute or chronic, recent or even of forty years' standing, is liable to induce an intracranial lesion. As soon as the tympanum is infected, the pathogenic germs are liable to have their virulence enhanced under the influence of the closed cavity, as in the case of the appendix, and may spread thence in any direction. The cavities of the ear, including the mastoid cells, afford peculiarly favorable conditions for increasing the virulence of germs which have penetrated through the Eustachian tube, and the thin or porous bony walls offer but slight obstacle to their further migration, resulting in meningitic lesions, phlebitis or thrombosis, or an abscess in the cerebrum or cerebellum. The symptoms of the latter are generally cephalalgia, predominating in the occipital region, vertigo, ictus, loss of balance, staggering, vomiting, nystagmus, contraction in the neck, neuritis of the optic nerve, muscular asthenia, somnolence, torpor approaching coma, and possibly fever. This syndrome occurs, whatever the portion of the cerebellum involved, but paresis of the facial and external motor ocular nerves localizes the lesions on the same side. The violence, persistency and localization of the cephalalgia differentiate it from the aural or labyrinthic syndrome. The lack of motor disturbances, paresis, contractions and spasms on the side opposite the lesion, differentiate it from an abscess in the temporo-sphenoid or occipital lobes. Word-blindness and hemianopsia are also important symptoms of the latter. Tumors usually induce further symptoms, from compression of neighboring regions, and syphilitic lesions should also be carefully discriminated and receive specific treatment. Prompt surgical intervention, before the abscess has involved the adjacent tissues, is the only treatment applicable to abscesses of the cerebellum. Laborde exhibited in connection with this communication several rabbits which demonstrated the peculiar functions of the cerebellum as the "regulator of the equilibrium." A needle had been inserted in the cerebellum through the skull, inducing a strictly localized and circumscribed lesion, with the identical result for each point, in a large number of tests. Lesion of the middle peduncle induced a lively motor reaction, with loss of equilibrium, the animal turning rapidly on the lengthwise axis of the body, from right to left if the lesion was on the right side. Pricking the superior peduncle induced a motor reaction similar to the motion in circus-riding. Lesion of the inferior peduncle caused a deviation of the head and upper portion of the body to the side of the lesion. Frogs thus treated deviated invariably and irresistibly to the right in jumping and swimming. These three manifestations of loss of motor balance—due to lesions of these three points in the cerebellum, all closely connected with the in-

nervation of the ear—easily explain the vertigo, etc., in an auricular lesion. The typical case of abscess in the cerebellum described by Dieulafoy was consecutive to an otitis a few weeks before, so slight that the patient had quite forgotten it. In entering the hospital he had been seized with sudden vertigo and had fallen violently toward the left. The abscess was found as diagnosed, in the left lobe, but not until the autopsy. The cerebellum appeared quite normal when exposed, and punctures missed the site of the lesion. The respiration suddenly ceased completely for twenty minutes, although the pulse could still be faintly felt at intervals. In exploring with his finger the surgeon touched the posterior surface of the medulla oblongata and immediately the patient made a deep and loud inspiration. Removing the finger respiration ceased again, but was resumed as soon as the finger was replaced and the patient was finally restored to life for a few days longer. The finger had probably lifted the pressure of the abscess from the respiration center in the floor of the fourth ventricle. The antero-external abscess was in the white matter, not encapsulated, containing about two gm. of creamy, greenish pus, with the pneumococcus pure but not virulent. There was no other lesion.

Presse Medicale (Paris), July 4 and 7.

Tropical Fevers and Quinin. E. LEGRAIN.—The conclusions of this study of 300 cases of tropical intermittent fevers in respect to their reaction to quinin, compared with that of non-intermittent pyrexias, show that a dose of quinin has no effect upon an established attack of intermittent fever, but that the proper amount—10 to 25 cg. —promptly administered at the first indications of an attack, will always cut short an intermittent fever for a minimum period of five days. On the other hand, all other pyrexias show the effect of quinin at once by an artificial and transient drop in the temperature, the amount varying with the disease and characteristic of each. In biliary affections and in septicemia of intestinal origin, the effect of quinin is disastrous, as it adds its own hemolytic action to the globulicidal action of the infection.

Resection of the Gasserian Ganglion. O. JACOB.—Attention is called in this article to the danger of injuring the sphenoidal sinus in resecting the Gasserian ganglion, with consequent infection and possibly fatal results. Jacob recommends the Krause-Hartley operation as less liable to injure the sinus than the pterygo-maxillary route, which he formerly advocated.

Semaine Medicale (Paris), July 4.

Immunity to Malaria. C. FIRKET.—The generally accepted idea that malarial infection is a typical example of a disease which does not confer immunity against future attacks, has been controverted by Koch's latest research, which tends to demonstrate that an immunity is gradually acquired in the course of time, and that whites can attain this immunity as well as negroes. This conflicts again with the experience of foreigners in tropical countries, who show an increasing mortality the longer their stay. Firket attributes this fact to the injurious influence of the climate, which hinders or prevents the colonists from benefiting by their acquired immunity. He, therefore, urges the necessity of diminishing this unfavorable influence by improving the general conditions of existence, especially during the convalescence from the first malarial attack—a critical period which may determine the degree of immunization and of ulterior capacity for work.

Berliner Klinische Wochenschrift, July 2.

Origin of Tuberculosis from the Blood. AUFRECHT.—The fact that tuberculosis is not induced by inhalation of the germs seems to be established by Aufrecht's research mentioned in THE JOURNAL of July 28, p. 262. He has shown that the first stage of the tubercular process is a thrombus in one of the finer capillaries where the bacilli lodge, with consecutive thickening of the walls of the vessel and necrotic changes —caseous foci—in the portion of the tissue from which the blood-supply is thus cut off. He now announces that tubercle bacilli were invariably found in the thrombus or in the thickened wall of the vessel in both experimental and human tuberculosis in all his research, showing that they must have been derived from the blood. In one instance he found a pure culture in a thrombus in a tiny capillary leading to a single caseous nodule in the kidney of a rabbit. The discovery of the bacillus in these primary anatomic localizations offers a plausible explanation of all the varied phenomena of tuberculous affections in any part of the body in man or induced experimentally in animals.

Centralbatt f. Chirurgie (Leipsic), July 7 and 8.

Thyreoptosis. A. KOCHER.—It is more than probable that many cases of thyreoptosis have been mistaken for asthmatic affections, and been vainly treated by internal remedies. The condition sometimes requires surgical intervention and Kocher has successfully operated on several patients. The gravity of the intervention is proportionate to the size of the displaced goiter, and consequently its early recognition is of great importance. An observation is described in which the only symptoms to suggest a hidden goiter were indications of slight paralysis of the recurrent and sympathetic nerves on one side. There were no signs of a goiter in the neck and the trachea was free its entire length. An elastic, deep goiter was palpated in the thorax, corresponding to an area of dulness over the upper half of the sternum and upper right ribs. It rose and fell in breathing, but caused no disturbance, as the thorax was large. The displacement in this case could be traced to an old, chronic muscular contraction, forcing the head forward.

July 14.

Etiology of Congenital Dislocation of Hip-Joint. P. BADE.—In twenty-five out of ninety-four cases of congenital dislocation of the hip-joint, Roentgen photographs showed more or less alteration of a similar nature on the sound side; the acetabulum unduly wide, the roof flat, the sides of the socket thickened, asymmetrical atrophy, or else anomalies in the growth of the head. Congenital dislocation is, therefore, due to a primary defect in formation, which may be so slight as not to induce dislocation. If the primary alterations are located in the upper portion of the neck and not in the acetabulum, coxa vara may result.

Deutsche Medicinische Wochenschrift (Berlin), July 5 and 12.

Traumatic Pancreatic Abscess. W. STROHMAYER.—Two months after an injury in the gastro-abdominal region a workman, 43 years of age, presented symptoms suggesting an internal malignant tumor, not located in the stomach or intestines. There was no fatty diarrhea nor evidences of diabetes to direct attention to the pancreas, but frequent vomiting and increasing tympanism, icterus and cachexia were noted. The patient died in a sudden attack of intense dyspnea a month later, and the autopsy disclosed a perforation of an abscess in the pancreas into the pleural cavity. The trauma had probably induced a hemorrhage in the pancreas with subsequent abscess formation—Körte noticed a similar co incidence of trauma and abscess in three out of forty-six cases.

Spontaneous Rupture of Esophagus. HEINTZE.—The observation described resembled the twelve already recorded, except that there was no sensation of laceration and no subcutaneous emphysema. The patient was a mason, 43 years old, in vigorous health, although addicted to liquor; no antecedents. Immediately after a hearty meal he experienced a violent pain in the stomach, intensified by deep breathing, nausea, pulse 140, small, no fever, lungs free in front, heart sounds distinct, abdomen apparently normal. Death occurred in collapse seven hours later. A longitudinal perforation was found in the esophagus 1½ cm. long, 6 cm. above the cardia. The left pleural cavity contained 1½ liters of food from the last meal, the lung completely collapsed. There was no evidence of any abnormal processes to acount for the laceration.

July 12.

Immunity in Connection With Epidemics. A. WASSERMANN.—As the laws of epidemics and immunization are becoming better understood, they seem to establish that all infectiou diseasses—even malaria—confer immunity against further infection by the same microbe, the immunity varying in its intensity and permanence. Study of the recent small epidemic of influenza in Germany demonstrated that the influenza bacillus vanished rapidly and completely from the blood; this fact indicates a condition of immunity in the subject. But the additional fact was noted that the disappearance of the bacilli was followed by symptoms of intoxication;

the immunity only covers the live bacilli and does not protect against the toxins liberated by their dissolution. Koch and Donitz have suggested that the immunity conferred by an epidemic places a zone of immune individuals around an endemic focus which prevents the further spread of the infection until their immunity has lapsed. Wassermann found that every one of his patients in the recent epidemic of influenza had passed through a severe attack ten years ago. The immunity conferred by the latter had evidently not sufficed to prevent a new attack, but had caused the rapid destruction of the bacilli in the system, with consequent severe intoxication. He remarks that the recent slight epidemic is an indication that the populace is beginning to be ripe again for a new, extensive epidemic of influenza.

Staining of Malarial Parasites. R. Ruge.—The stain recommended in this communication is as effective as the usual ones, but dispenses with the necessity of a contrast stain. The "reds" are greenish, the "whites" bright blue and the different forms of the malaria germs almost black or dark blue. A solution of .2 soda in 100 c.c. water is heated, and as it boils .3 methylene blue pur. is added. The mixture is set aside to cool for forty-eight hours, when it is filtered ready for use. The amount of blue must be increased if the blood is over four weeks old.

Enucleation vs. Evisceration et al. H. Schmidt-Rimpler.—This communication from the Göttingen ophthalmic clinic was compiled with reference to the discussion of the question of the relative advantages of operations on the eye, announced for the approaching International Congress of Medicine. Enucleation was done 160 times, evisceration 149, and optic-ciliary neurectomy 26. Recovery was most rapid after the first and slowest after the last operation. In 4 of the 10 cases in which the eye was enucleated with existing sympathetic inflammation, it subsided in 4, leaving the sight good. Sympathetic serous iritis has a better prognosis than plastic iridocyclitis with extensive posterior synechiæ. Iridectomy in the latter case usually entails softening and loss of the eye, which without it may last a long time. Sympathetic ophthalmia is caused by a reflex irritation by the mediation of the ciliary nerves, and this irritation affords the disposition and a favorable soil for inflammation from any cause. This theory is supported by Moll's recent experiments with rabbits. He set up an irritation in the anterior chamber, with a fragment of copper introduced and then injected a culture of the pyocyaneus into the vein of the ear. The next day the microbes were found in the aqueous humor of both eyes, while none were found in either eye in control animals without a preceding injury. In one of the six case-reports which Rimpler adds to his communication, the sympathetic ophthalmia first appeared in the course of an angina. It may occur years after neurotomy or neurectomy or evisceration, by the growth of new fibers into the sclerotic. On the other hand, he has been frequently amazed at the way in which an eye that seemed ripe for enucleation has finally recovered without inducing sympathetic disturbance. When a condition of irritation in both eyes is evident, he treats it with mercurial inunctions or subcutaneous injections of sublimate, and a darkened room. He advises evisceration as the operation for non-specialists and in case of suppurative processes and also to prevent asymmetry in the development of children. The indications for optic-ciliary neurectomy are limited. It should never be done unless the danger of sympathetic disturbance is very slight, and consequently, never in case of a foreign body, nor of extensive defect of the eye.

Meningotyphoid Fever. A. Hofmann.—There is evidently a close connection between all the cerebral symptoms in typhoid fever, from the extremely severe manifestations in the observation described, with death in coma, to the convulsions, twitchings, trembling of the fingers, delirium or slight somnolence noted in others—all directly traceable to the influence of the toxins secreted by the typhoid bacillus and circulating in the blood. But when, as in the case reported, the bacilli penetrate into the meninges and thus bring the full strength of the toxin directly in contact with the nerve tissue, the effect attains its maximum. The unusually large spleen confirmed this conception of the syndrome; the patient died before a suppurative meningitis had time to develop.

Experiences with Light-therapy. H. Strebel.—Whenever a sweatbath is indicated, the electric-light baths accomplish the desired end without taxing the heart, and they seem to have a specifically favorable effect on cardiac and diabetic troubles. The combination of light and warmth in the incandescent-light baths proved especially effective in some cases of old, chronic diabetes, in which the sugar was reduced from 6.7 per cent. to .1 within four weeks. Neuralgia was favorably influenced—especially ischias—in many cases, by the "light-warmth" baths, never by the light baths alone, but the most striking effects were observed in cutaneous affections, ulcus cruris, acne, furunculosis, etc. One case of ulcus cruris which had resisted all treatment for two years began to heal in five days of "light-warmth" treatment and was completely cured in twenty. Finsen uses the cold light exclusively, but Strebel finds the combination of light and heat most effective, and sunlight through a hollow lens filled with a vitriolized solution, the cheapest and best source, whenever practicable.

Muenchener Medicinische Wochenschrift, July 3.

Bilirubin in Urine in Heart Disease. F. Ott.—The Salkowski test revealed the presence of bilirubin in the urine of patients with heart disease accompanied by an icteric complexion. It also showed that the elimination of bilirubin persisted after that of urobilin had ceased. Much albumin or hemoglobin in the urine, or ingestion of salol, etc., prevented the detection of the bilirubin.

Venesection in Heat Stroke. C. Klein.—A severe case of heat stroke, from the unusual work in the engine-room of a steamer, was proceeding rapidly to a fatal termination from increasing edema of the lung. The convulsions prevented artificial respiration and bathing; the pulse and breathing contraindicated chloroform, and there was no time to prepare an artificial salt solution for transfusion. Klein withdrew 220 gm. of blood, the effect of which was immediately beneficial. The pulse and respiration became slower and fuller in a few minutes; the convulsions gradually ceased, and the patient slept calmly for ten hours.

Venesection in Uremia. R. V. Hoesslin.—Two observations are reported in which life was undoubtedly saved by venesection. One was a case of croupous pneumonia, the crisis rapidly following the intervention. In the other case nephritis and severe uremia had induced cardiac insufficiency, which had in turn diminished the urine and aggravated the nephritic process. The immediate danger was relieved by venesection—the patient was too agitated for the contemplated transfusion of artificial serum—and digitalis was then administered, which by raising the blood-pressure rapidly put an end to the remaining uremic symptoms by increasing the urine. The congestive processes in the kidney were also relieved at the same time as the cardiac insufficiency, and under the influence of the improved circulation through the kidneys, the nephritic process soon healed.

Atropin in Ileus. Batsch.—Two more cases are reported in which severe ileus with fecal vomiting was successfully cured with two injections of .005 atropin. In another observation laparotomy had finally to be performed, but the influence of the atropin was evident, facilitating the operation and preventing gangrene in the incarcerated loop.

Inexpensive Thermostat for Bacteriology. K. Walz.—A simple, reliable and inexpensive oven for bacteriologic cultures is afforded by applying the principle of the thermophore to a small incubating apparatus.

Therapie der Gegenwart (Berlin), June.

Electric Treatment of Bladder Troubles. E. V. Tovölgyi.—Certain bladder troubles accompanying organic nervous affections are amenable to electrotherapy. Two observations are related in detail of the success of three weeks' treatment with electrization of the vesical sphincter and of the prostate through the rectum, putting an end to serious urinary troubles of many years' standing, in patients with syphilitic antecedents and tabetic symptoms, one a butcher of 47, the other still younger, a cabinetmaker, with symptoms of sclerosis in patches.

Pain-Soothing Effect of Roentgen Rays. L. STEMBO.—The analgesic properties of the Roentgen ray are extolled by the writer, who states that he has cured 21 out of 28 cases of severe neuralgia by a few sittings, usually three, of three to ten minutes in length. The current was 16 to 20 volts, with about 1500 interruptions to the minute and spark 45 cm. long.

Oak-Bark Baths for Pemphigus Malignus. A. BAGINSKY.—Five complete recoveries in eighteen cases of dermatitis exfoliativa or pemphigus malignus foliaceus, Baginsky considers a good record for his method of treatment, which consists in a six to eight minutes' bath at 27 C., with 1 kilo of a decoction of oak-bark in the water. The patient is then wiped dry with cotton and dusted thick with a powder of equal parts of zinc oxid and talcum, renewed several times a day. He has recently treated a fourteen-day babe in this way with brilliant results. All other salves and fluids are rigorously forbidden and the results are incomparably better than he has ever attained before.

Sozoiodolates in Scarlet Fever. A. BAGINSKY.—The severe ulcerative necrotic angina in some cases of scarlet fever is favorably influenced by insufflating sodium sozoiodolate with equal parts sulphur, several times a day, which has proved a valuable local adjuvant, in Baginsky's experience.

Tidsskrift t. d. Norske Lægeforening (Christiania), July 1.

Pregnancy with Intact Hymen. H. BRODTKORB.—Summoned to attend an obstetric case, the writer found a well-developed woman, married a year before. The pregnancy had been normal to term, but the hymen was intact, with merely an opening .25 cm. in diameter. The urethra was very much stretched and had been used for coitus without consciousness of the error on the part of either husband or wife.

Brazil Medico (Rio Janeiro), June 8.

Medicinal Plants. R. M. DA SILVA.—Two plants grow in the Espirito-Santo district where the writer resides, which have been used by the populace for generations. One is of the Lamiacea family, genus leonotis. It is called "poor man's quinin" and contains a bitter alkaloid which cures malarial and gastric affections and is of great assistance in washing clothes. It renovates the skin, making it delicate and satiny as that of any European *grande dame*. The other plant is of the Amaranthacea family, the "Gomphrena pohlu." The infusion of the dried leaves forms a delicious, aromatic drink, much used in rheumatic and syphilitic affections. Da Silva recommends it in place of tea or coffee. The popular name is *chapeo de couro*, while the leonotis is known as *herva macahé*, *lavadeira*, and *S. Fidelis*.

New Patents.

Patents of Interest to Physicians, July 3 and 10.

653,193. Stopper for atomizers or perfumery bottles, Joseph Albiez, New York City.
653,013. Syringe, Wm. A. Armour, Thomaston, Conn.
652,889! Surgical or obstetrical pad. Tillie Campbell, Oakland, Cal.
652,999. Vaccinating instrument. Louis A. Denis, West Hoboken, N. J.
653,179. Splint. James G. Hughes, Port Arthur, Texas.
652,969. Making ionone. Wilhelm Krauth, Griesheim-on-the-Main, Germany.
653,120. Pasteurizing apparatus. Alban H. Reid, Philadelphia.
652,985. Syringe, injector, etc. John H. Walker, Charters Towers, Queensland.
653,466. Measuring spoon. Edward L. and K. K. Bigelow, Everett, Mass.
653,440. Invalid's bed. Albert B. Clark, Hamburg, N. Y.
653,547. Invalid bed attachment. Anna E. Countryman, Marcus, Iowa.
653,575. Apparatus for massaging by vacuum. Henry F. Garey, Baltimore, Md.
653,259. Invalid bed. Emil Otto, Elmhurst, Ill.
653,321. Adjustable surgical chair. Tiffin J. Shackelford, Warsaw, and C. A. L. Kirkpatrick, Fort Wayne, Ind.

Queries and Minor Notes.

GOAT LYMPH CURE.

SALISBURY, MO., July 24, 1900.

To the Editor:—Please give us something in THE JOURNAL about goat lymph; its use, value, status with the medical profession, etc.

J. D. B.

ANS.—THE JOURNAL does not advertise the goat-lymph cure, because it sees no reason for placing any faith in it. Moreover, the methods and claims of those exploiting it are not such as commend it to thinking physicians.

A COMPOSITE PROFESSION.

Dr. Adam H. Wright, in his President's Address before the Ontario Medical Association, calls attention to the following advertisement, taken from a newspaper of Shakespeare's time:

> WANTED—In a family who have had bad health, a sober, steady person in the capacity of doctor, surgeon and man-midwife. He must occasionally act as butler and dress hair and wigs. He will be required sometimes to read prayers, and preach a sermon every Sunday. A good salary will be given.

It would be an interesting addition to the "ad" if it could be stated what was "a good salary" at that time.

COAL-GAS POISONING.

FLINT, MICH., July 5, 1900.

To the Editor.—In THE JOURNAL for June 30, 1900, page 1678, I notice an article with the heading "Poisoning by Coal-Gas and Its Treatment." In this article we are told that methane or marsh-gas is the ingredient that produces the light in coal-gas. I wish to call your attention to the fact that marsh-gas when burned is easily recognized by its producing a pale-blue flame far inferior to olefiant gas in luminosity, and very much inferior to acetylene. The writer of this article is mistaken as to the illuminating properties of methane, as it is acetylene that makes the gas rich in light-giving qualities and not marsh-gas. Some of the coal gases contain the cyanogen vapors in the shape of uncombined hydrocyanic acid together with several chemical compounds not mentioned in this article, and a novice that would base a solution of a problem upon this article would not be on the right road to success.

O. MILLARD, M.D.

ASHTON, R. I., July 4, 1900.

To the Editor.—In an article entitled "Poisoning by Coal-Gas and Its Treatment," in THE JOURNAL, June 30, the writer asserts that "asphyxia means suffocation," and therefore the term "asphyxiation" as applied to this condition is incorrect. He quotes from Mr. N. Wiley Thomas, proving that carbon monoxid is an impurity, which poisons the blood by uniting with the hemoglobin, thus rendering the latter incapable of taking up the necessary oxygen.

As to treatment, he says that experiments made by Dr. Darrah show that carbon monoxid, by excluding oxygen, causes a feeble pulse—asphyxia—while the respiration is increased in frequency and depth, thus that the above condition is caused not by a failure of respiration—apnea—or suffocation, but by failure of pulse—asphyxia. The proper term to use, therefore, is "Asphyxiation."

N. O'D. PARKS, B.A., M.D.

ANS.—In the article on coal-gas poisoning, referred to by our correspondent, the statements concerning the formula and the luminosity of coal-gas were misleading. The word "formula," in reference to a chemical substance indicates that it has a definite and unvarying composition. Coal-gas is a mixture, not a definite compound, and therefore, the word "composition" would have been more applicable. Again, the composition of coal-gas varies according to the variety of the coal used in its manufacture, and the composition given therefore is only a typical one. In giving the composition, the article mentioned illuminants, ethylene, acetylene, etc. These are included in the illuminants and therefore are mentioned twice.

As to the luminosity of coal-gas, both the article and our correspondent are partly correct, yet neither has told the whole truth. Marsh-gas, as such, does not burn with a luminant flame, but when heated it becomes changed to acetylene, and is thus the principal illuminant. As to the appropriateness of the term "asphyxiation," we should not be too hypercritical. Asphyxiation originally meant pulseless, and as the lack of pulse is one of the commonest symptoms of suspended animation, the word has come to be used in reference to any suspension of vital phenomena.

The Public Service.

Army Changes.

Movements of Army Medical officers under orders from the Adjutant-General's office, Washington, D. C., July 6 to 24, 1900, inclusive:

H. Eugene Allen, acting asst.-surgeon, from Fort Sam. Houston, Tex., to Fort McPherson, Ga., to accompany Co. M, 15th United States Infantry, to the Philippine Islands, via San Francisco, Cal., and on arrival at Manila to report for assignment to duty.

W. Edson Apple, acting asst.-surgeon, from Fort Columbus, N. Y., to West Point, N. Y., to accompany Co. E, Battalion of Engineers, to San Francisco, Cal., and thereafter to return to his proper station.

Lewis Balch, major and surgeon, vols., leave for absence granted on account of sickness.

John M. Banister, major and surgeon, U. S. A., member of board to examine candidates for admission to the United States Military Academy, West Point, N. Y.

Charles N. Barney, acting asst.-surgeon, from Fort Edward, N. Y., to temporary duty at Fort Monroe, Va.

Peter W. Beckman, acting asst.-surgeon, from Alton, Ill., to the Department of California.

William C. Borden, captain and asst.-surgeon, U. S. A., leave of absence granted.

Wilmot E. Brown, acting asst.-surgeon, from Taylorville, Ill., to Denver, Col., to accompany troops from the Department of the Colorado to the Philippine Islands.

Charles B. Byrne, major and surgeon, U. S. A., from Plattsburg Barracks, N. Y., to San Juan, Porto Rico, for assignment as chief surgeon, Department of Porto Rico.

W. Earle Chapman, acting asst.-surgeon, from Cheboygan, Mich., to the Department of California.

Alpha M. Chase, acting asst.-surgeon, from Denver, Col., to the Department of California.

August von Clossman, acting asst.-surgeon, from Jefferson Barracks, Mo., to duty as attending surgeon and examiner of recruits at St. Louis, Mo.

Marshall M. Cloud, lieutenant and asst-surgeon, U. S. A., to proceed to San Francisco. Cal., to accompany the 1st U S. Cavalry, en route to Manila, P. I.

William H. Corbusier, major and surgeon, U. S. A., from San Francisco, Cal., to Washington, D. C., to report to the surgeon-general for instructions.

Joseph J. Curry, acting asst.-surgeon, to report in person to the surgeon-general for instructions.

William B. Davis, major and surgeon, U. S. A., member of a board to examine candidates for admission to the U. S. Military Academy, West Point, N. Y.

Samuel M. DeLoffre, acting asst.-surgeon, from Washington, D. C., to Omaha, Neb., to accompany the 1st U. S. Cavalry to the Philippine Islands, reporting on arrival at Manila for assignment to duty.

Charles H. Fischer, acting asst.-surgeon, leave of absence granted.

John S. Fogg, acting asst.-surgeon, from Columbus Barracks, Ohio, to Fort Myer, Va., to accompany a squadron of the 3d U. S. Cavalry to the Philippine Islands, and on arrival at Manila to report for assignment for duty.

Marion O. Fulcher, acting asst.-surgeon, to accompany the 3d Battalion, 15th U. S. Infantry, from Madison Barracks, N. Y., to the Philippine Islands, *via* San Francisco, Cal., and on arrival at Manila to report for assignment.

Leigh A. Fuller, lieutenant and asst.-surgeon, U. S. A., to report at Washington, D. C., for instructions while en route, under previous orders, from Fort Monroe, Va., to San Francisco, Cal.

Charles M. Gandy, captain and asst.-surgeon, U. S. A., member of a board to examine candidates for admission to the U. S. Military Academy, West Point, N. Y.

Lewis T. Griffith, acting asst.-surgeon, leave of absence granted, and relief from duty at Fort Preble, Me.; on expiring of leave to proceed *via* San Francisco, Cal., to Manila, P. I., for assignment.

John Van R. Hoff, major and surgeon, U. S. A., relieved from duty as chief surgeon, Department of Porto Rico, to report to the surgeon-general for instructions.

Francis J. Ives, major and surgeon, Vols., relieved from duty as chief surgeon, Department of Matanzas and Santa Clara, to proceed to New York City and report by telegraph to the surgeon-general for instructions.

David J. Johnson, acting asst.-surgeon, to accompany the 1st Battalion, 15th U. S. Infantry, from Plattsburg Barracks, N. Y., to San Francisco, Cal., and thereafter to return to his proper station.

Dryden H. Lamb, acting asst.-surgeon, from Owosso, Mich., to the Department of California.

Edward E. Lambkin, acting asst.-surgeon, from St. Louis, Mo., to the Department of California.

Harry R. Lemen, acting asst.-surgeon, from Upper Alton, Ill., to the Department of California.

A. N. Mahon, acting asst.-surgeon, leave of absence granted.

Henry C. Many, acting asst.-surgeon, from Honesdale, Pa., to the Department of California.

James G. McKay, acting asst.-surgeon, leave of absence from the Department of Santiago and Puerto Principe extended.

John S. Nagle, acting asst.-surgeon, from Chicago to St. Paul, Minn., to accompany troops from the Department of Dakota to the Philippine Islands, where he will report for assignment to duty.

Ralph W. Newton, acting asst.-surgeon, from Barre, Vt., to the Department of California.

Arlington Pond, acting asst.-surgeon, from Rutland, Vt., to duty at Fort Preble, Me.

William W. Reno, acting asst.-surgeon from Detroit, Mich., to the Department of California.

Michael J. Rowe, acting asst.-surgeon, from Bridgeport, Conn., to the Department of California.

Ira A. Shimer, lieutenant and asst.-surgeon, U. S. A., leave of absence from the Department of Santiago and Puerto Principe extended.

Charles F. Smith, acting asst.-surgeon, from Whitehall, Mich., to Denver, Col., to accompany troops from the Department of the Colorado to the Philippine Islands.

Louis A. Spaeth, acting asst.-surgeon, from Jersey City, N. J., to the Department of California.

Charles H. Stoeckle, acting asst.-surgeon, from Philadelphia, Pa., to Denver, Col., to accompany troops from the Department of the Colorado to the Philippine Islands.

Lionel A. B. Street, acting asst.-surgeon, from Brookline, Mass., to the Department of California.

Harrison W. Stuckey, acting asst.-surgeon, from Columbus Barracks, Ohio, to Fort Myer, Va., to accompany a squadron of the 3d U. S. Cavalry to the Philippine Islands and on arrival at Manila to report for assignment to duty.

Isedor M. Unger, acting asst.-surgeon, from Warren, Ind., to the Department of California.

Francis M. Wall, acting asst.-surgeon, from Warren, Ind., to Denver, Col., to accompany troops from the Department of the Colorado to the Philippine Islands.

Charles Willcox, captain and asst.-surgeon, to proceed to San Francisco, Cal., to accompany the 9th U. S. Cavalry to Manila, P. I.

Henry E. Wetherill, lieutenant and asst.-surgeon, U. S. A., to duty with the 1st U. S. Cavalry en route to Manila, P. I.

Frank T. Woodbury, acting asst.-surgeon, from Philadelphia, Pa., *via* San Francisco, Cal., to Manila, P. I., for assignment.

Navy Changes.

Changes in the Medical Corps of the United States Navy for the week ending July 21, 1900.

Medical Director P. Fitzsimons, detached from the naval examining board, Annapolis, Md., and ordered to duty in charge of the naval hospital, Newport, R. I.

Medical Director H. J. Babin, detached from duty as president of the medical board of examiners, naval laboratory, Brooklyn, N. Y., July 25, and ordered home and to wait orders.

Surgeon L. G. Heneberger, detached from the naval hospital, Brooklyn, N. Y.

P. A. Surgeon A. M. D. McCormick, detached from the *Chicago*, and ordered to the *Montgomery*.

Asst.-Surgeon J. R. Whiting, detached from the *Montgomery* and ordered to the *Chicago*.

Asst.-Surgeon C. N. Fiske, detached from the navy yard, Boston, and ordered to duty with marines at San Francisco, Cal., and then to duty at the naval hospital, Mare Island, Cal.

Asst.-Surgeon J. H. Payne, Jr., detached from the naval hospital, Mare Island, Cal., and ordered to the Asiatic Station with the Fifth battalion of marines.

Pharmacist A. Prosperi, detached from the naval academy, July 21, and ordered home and to wait orders; retired from July 3, 1900, under th provision of section 1143, Revised Statutes, upon his own application after forty years' service.

Marine-Hospital Changes.

List of changes of station and duties of commissioned and non-commissioned officers of the United States Marine-Hospital Service for the seven days ending July 19. 1900.

Surgeon P. M. Carrington, upon expiration of sick leave of absence, to proceed to Point Pleasant, N. J., for special temporary duty.

Surgeon T. B. Perry, upon return of Surgeon McIntosh from leave of absence, to proceed to Wilmington, N. C., and assume command of the service, relieving P. A. Surgeon C. P. Wertenbaker.

P. A. Surgeon C. P. Wertenbaker, to proceed to Washington, D. C., preparatory to receiving orders to assume command of the service at New Orleans, La.

Asst.-Surgeon H. S. Mathewson, to proceed to Philadelphia, Pa., and report to medical officer in command for duty.

Asst.-Surgeon M. J. White, upon being released from duty at Philadelphia, Pa., to proceed to San Francisco, Cal., and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon W. C. Hobdy, bureau order of June 27, 1900, directing Asst.-Surgeon Hobdy to proceed to Honolulu, H. I., revoked and directed to proceed to Savannah, Ga., and assume command of the service.

Asst.-Surgeon W. C. Billings, granted 15 days' extension of leave of absence from July 15.

Asst.-Surgeon D. E. Robinson, upon being relieved from duty at Memphis, Tenn., proceed to Seattle, Washington, and assume command of the service, relieving Acting Asst.-Surgeon Eagleson.

Asst.-Surgeon Carroll Fox, relieved from duty at Port Townsend quarantine, and directed to proceed to Dutch Harbor, Alaska, reporting to medical officer in command for duty.

Asst.-Surgeon W. A. Korn, upon being relieved from duty at Evansville, Ind., to proceed to Philadelphia, Pa., and report to medical officer in command for duty.

Asst.-Surgeon C. W. Vogel, relieved from duty at San Francisco, Cal., and directed to proceed to San Francisco quarantine and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon B. J. Lloyd, relieved from duty at San Francisco Quarantine, Cal., and directed to proceed to Cape Nome, Alaska, and report to Asst.-Surgeon B. H. Earle for duty.

Asst.-Surgeon J. T. Burkhalter, upon being relieved from duty at New York City, to proceed to Mobile, Ala., and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon G. W. McCoy, relieved from duty at St. Louis, Mo., and directed to proceed to San Francisco, Cal., and report to medical officer in command for duty and assignment to quarters.

Acting Asst.-Surgeon R. C. Craig, granted leave of absence for 7 days.

Acting Asst.-Surgeon A. G. Greenstreet, to proceed to Wilmington, N. C., and report to medical officer in command for duty and assignment to quarters.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, United States Marine-Hospital Service, during the week ended July 20, 1900.

SMALLPOX—UNITED STATES.

Illinois: Chicago, July 7 to 14, 2 cases.
Kansas: Wichita, July 7 to 14, 2 cases.

Louisiana: New Orleans, July 7 to 14, 11 cases, 3 deaths; Shreveport, July 7 to 14, 3 cases.
Maryland: Baltimore, July 7 to 14, 1 case.
Massachusetts: Fall River, July 7 to 14, 1 case.
Nebraska: Omaha, July 7 to 14, 2 cases.
New Hampshire: Manchester, July 7 to 14, 1 case.
Ohio: Cleveland, July 7 to 14, 29 cases.
Pennsylvania: Philadelphia, June 8 to 16, 1 case.
South Carolina: Greenville, July 7 to 14, 1 case.
Utah: Salt Lake City, July 7 to 14, 2 cases.
Washington: Tacoma, July 1 to 7, 1 case.

SMALLPOX—FOREIGN AND INSULAR.

Brazil: Bahia, June 2 to 9, 2 cases.
England: Liverpool, June 23 to 30, 5 cases; London, June 23 to 30, 16 cases.
France: Lyons, June 16 to 23, 1 death; Roubaix, May 1 to 31, 1 death.
Greece: Athens, June 23 to 30, 4 cases, 2 deaths.
India: Bombay, June 5 to 12, 12 deaths.
Italy: Genoa, June 8 to 16, 3 cases.
Mexico: Vera Cruz, July 1 to 7, 9 deaths.
Scotland: Glasgow, June 22 to July 6, 170 cases, 3 deaths.
Switzerland, Geneva, June 8 to 16, 1 case.

YELLOW FEVER.

Africa: Goree Dakar, May 30 to June 16, 3 cases, 2 deaths.
Colombia: Barranquilla, June 23 to 30, 9 cases, 6 deaths; Cartagena, June 22 to 29, 11 cases, 9 deaths.
Cuba: Havana, June 27 to July 4, 5 deaths; Santa Clara, June 26 to July 7, 7 cases.
Mexico: Cordoba, July 1 to 8, reported: Progreso, June 23 to July 8, 3 cases, 2 deaths.

CHOLERA.

India: Bombay, June 5 to 12, 72 deaths.

PLAGUE

Arabia: Aden, June 8 to 16, 3 cases, 3 deaths.
Australia: Sydney, June 2 to 16, 14 cases, 6 deaths.
India: Bombay, June 5 to 12, 117 deaths.
Japan: Osaka, June 15 to 19, 1 case; Shidzuoka, June 15 to 19, 1 case.

Change of Address.

Dr. Spencer P. Irvin, from 1157 S. 19th St., Philadelphia, Pa., to Freedman's Hospital, Washington, D. C.
Dr. J. Klein, from 4800 N. Clark St. to 530 Lunt Ave., Rogers Park, Chicago.
Dr. F. C. Kovats, From 640 Jackson Boul. to St. Joseph's Hospital, 360 Garfield Ave., Chicago.
Dr. L. W. Lewis, from 4702 to 4711 State St., Chicago.
Dr. J .P. McMahon, from Lincoln Ill., to 69th St. and Wentworth Ave., Chicago.
Dr. J. A. Patton, from 2271 Harrison St. to 1150 Sheridan Road, Lake View Station, Chicago.
Dr. J. A. Prescott, from Cottage Grove Ave. and 31st St. to 4303-4305 Berkeley Ave., Chicago.
Dr. F. V. Watson, from Roberts, Wis., to 4658 State St., Chicago.
Dr. D. S. Adams, from 617 Orleans St., Keokuk, Iowa, to 905 20th St., Rock Island, Illl.
Dr. J. A. Guertin, from 731, 63d Court, Englewood, Ill., to L'Erable, Iroquois County, Ill.
Dr. G. H. Just, from Sheldon to Broadwell, Ill.
Dr. D. H. Pelletier, from St. Anne, Ill., to Fowler, Ind.
Dr. C. C. Birney, from Nora Springs to Mason City, Iowa.
Dr. Thomas G. Duncan, from Victoria, Texas, to 219 E. 4th St., Owensboro, Ky.
Dr. S. D. Holstein, from Leland to Sicily Island, La.
Dr. M. C. O'Brien, from New York City to Lewiston, Me.
Dr. Robert Sattler, from Groton Bldg., Cincinnati, Ohio, to Biddeford Pool, Me.
Dr. J. Madison Taylor, from Philadelphia, Pa., to Bar Harbor, Me.
Dr. C. G. Vary, from 47 W. Michigan St. to 47 W. Main St., Battle Creek, Mich.
Dr. B. F. Simon, from 3298 Hoyne Ave., Chicago, to 546 Mississippi St., St. Paul, Minn.
Dr. J. H. Amerland, from 2737 to 2739 Chippewa St., St. Louis, Mo.
Dr. G. W. McCoy, from Bristol, Tenn., to U. S. Marine-Hospital, St. Louis, Mo.
Dr. W. E. Walker, from Waveland to Pass Christian, Miss.
Dr. E. S. Goodhue, from Piru City, Cal., to Kailua, N. Kona, Hawaii. H. I.
Dr. M. C. Butler, from 516 College Ave., Elmira, to 49 Bridge St., Corning, N. Y.
Dr. F. S. Pearce, from Philadelphia, Pa., to Massaweple, N. Y.
Dr. F. A. Scratchley, 151 E. 72d St., New York Cty, to Palenville, N. Y.
Dr. S. G. Grant, from 58 W. 56th St. to 2 E. 45th St., New York City.
Brooklyn Medical Journal, from 103 Court St. to 1313 Bedford Ave., Brooklyn, N. Y.
Dr. T. Hubbard, from 145, 22d St. to 44 W. Bancroft St., Toledo, Ohio.
Dr. R. Bellamy, from 210 W. 57th St., New York City, to Stereus Villa, Newport, R. I.
Dr. M. L. Parler, from Parler, to Wedgefield, S. C.
Dr. F. M. Gage, from Lucknow to Rhea Springs, Tenn.
Dr. J. W. Bounds, from Chambersville to Weston, Tex.
Dr. J. D. Wiltrout, from Eau Claire to Marinette, Wis.

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